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PAGE 46

PERSONAL COMPUTERS

BusinessWeek

NOVEMBER 5, 1990 A McGRAW-HILL PUBLICATION $2.00

The Future of WALL STREET

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SPECIAL REPORT

Is Wall Street becoming irrelevant? Big institutional investors are using its services less and less. Many corporations are handling their own investment banking. New electronic trading technologies could wipe out the jobs of thousands of brokers, traders, and salespeople. Emerging securities markets with global scope are winning business from U.S. exchanges. Our financial system will never be the same. PAGE 118

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ones who are assuming
responsibility for
the future right now.
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solutions that are
flexible, and minimize
waste; solutions where
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all win. It may not
be the only way to run
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NOVELL

The Past, Present, and Future
of Network Computing.

SO WHO'S
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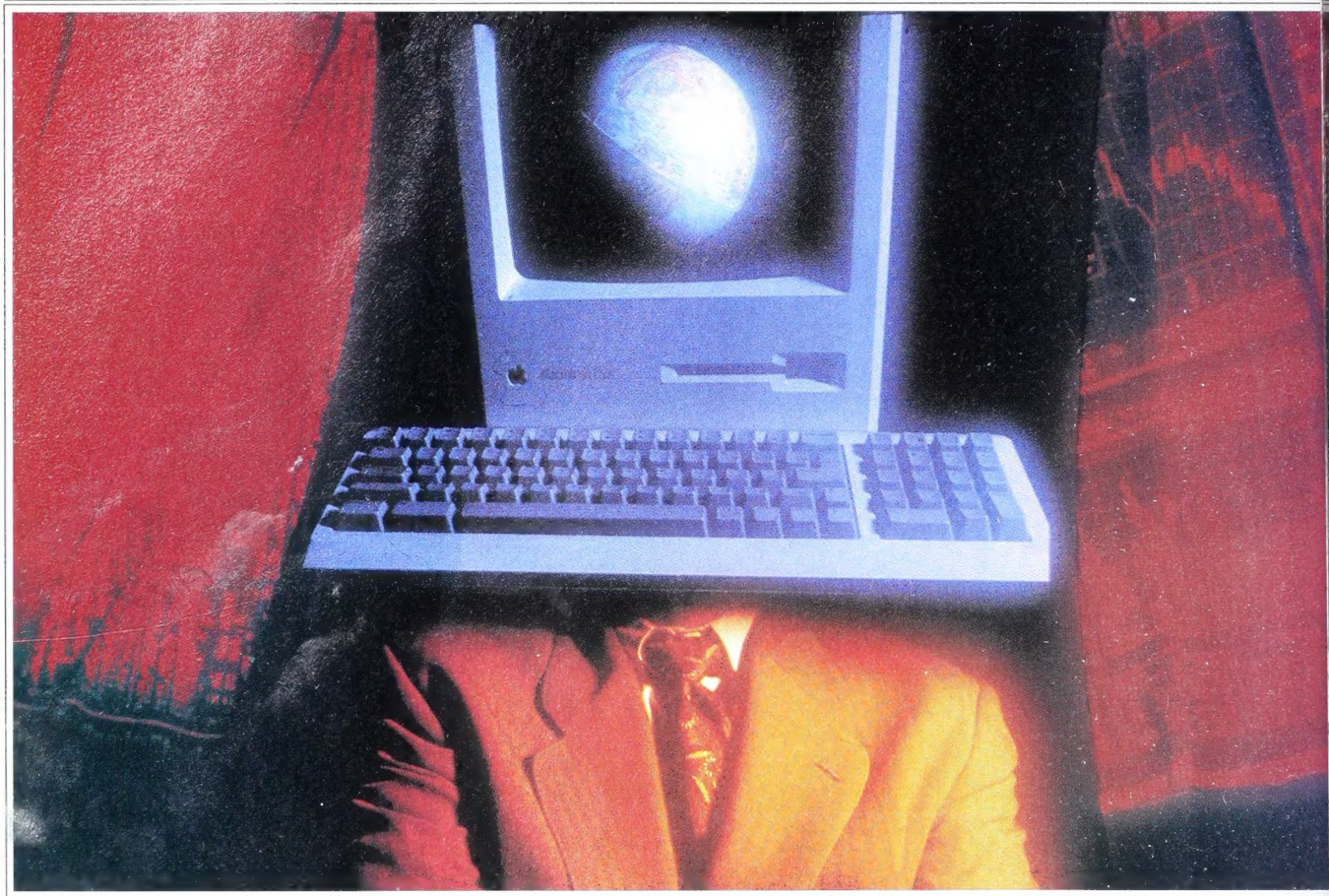
FOR THE
FUTURE?

NUMBER 3186 BusinessWeek NOVEMBER 5,1



STRANGE NEW WORLD: WALL STREET'S OLD-BOY NETWORK IS TAKING ITS LICKS AS TECHNOLOGY OPENS THE WAY TO GLOBAL TRADING

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The jeans maker is sewing up lucrative markets overseas

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China's 1997 Hong Kong takeover has Cathay Pacific's staff fleeing

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Nebraska's Cornhuskers rarely lose. And they never lose money

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With budget cuts and spiraling need, private social-service agencies are feeling the chill wind of recession

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Even the gigantic charity is struggling to make ends meet

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Suddenly, they're not growing much

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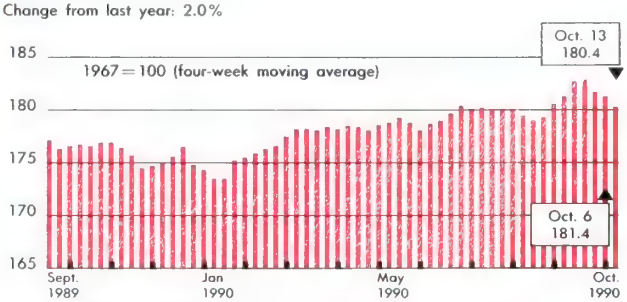
The NIH needs a leader fast

ss Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc U S subscriber rate $39 95 per year In Canada, one year CDN $54 95 Single $2 00 Executive, Editorial, Circulation, and Advertising Offices. 1221 Avenue of the Americas, New York, N Y 10020 Second-class postage paid at New York N Y , and at additional mailing Postage paid at Montreal, P Q Registration Number 9010 Title Reg in U S Patent Office **Postmaster:** Send address changes to BUSINESS WEEK P O Box 430, Hightstown, N J 08520

BusinessWeek Index

PRODUCTION

Change from last week: –0.6%
Change from last year: 2.0%

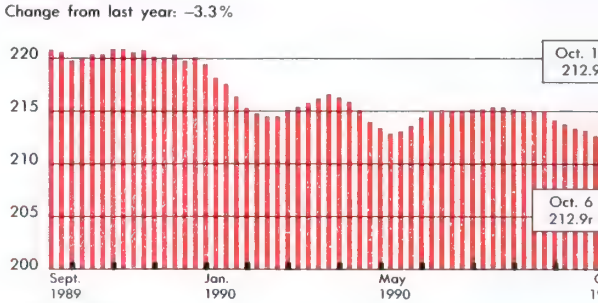


The production index continued its decline during the week ended Oct. 13. On a seasonally adjusted basis, output of autos and trucks decreased because of sagging vehicle sales. Steel, paperboard, coal, crude-oil refining, and rail-freight traffic output also dropped. Paper and electric power production increased. Lumber output was unchanged from the prior week. Before calculation of the four-week moving average, the index fell to 180.2, form 180.7 in the previous week.

BW production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: 0.0%
Change from last year: –3.3%



The leading index was unchanged for the week ended Oct. 13, as only
indicator signaled stronger growth in the latest week. But the faster pace in M2
more than offset by lower stock prices, higher bond yields, and slower growth
materials prices. The number of business failures and the rate of growth in
estate loans were unchanged from the previous week. Before calculation of the fo
week moving average, the index edged down to 212.9, from 213.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (10/20) thous. of net tons	1,862	1,863 #	2.5
AUTOS (10/20) units	131,454	143,450r #	–8.4
TRUCKS (10/20) units	76,105	82,284r #	10.1
ELECTRIC POWER (10/20) millions of kilowatt-hours	51,469	53,517 #	1.4
CRUDE-OIL REFINING (10/20) thous. of bbl./day	12,769	13,132 #	–2.9
COAL (10/13) thous. of net tons	20,509 #	20,967	0.4
PAPERBOARD (10/13) thous. of tons	735.8 #	757.1r	1.9
PAPER (10/13) thous. of tons	765.0 #	762.0r	3.5
LUMBER (10/13) millions of ft.	471.8 #	469.2	–12.3
RAIL FREIGHT (10/13) billions of ton-miles	20.7 #	21.1	2.5

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (10/24)	128	125	143
GERMAN MARK (10/24)	1.51	1.51	1.85
BRITISH POUND (10/24)	1.95	1.97	1.58
FRENCH FRANC (10/24)	5.07	5.05	6.28
CANADIAN DOLLAR (10/24)	1.17	1.16	1.18
SWISS FRANC (10/24)	1.27	1.27	1.62
MEXICAN PESO (10/24)[3]	2,915	2,910	2,569

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (10/24) $/troy oz.	371.100	366.000	0.7
STEEL SCRAP (10/23) # 1 heavy, $/ton	110.5	110.5	6.2
FOODSTUFFS (10/19) index, 1967 = 100	213.5	213.8	–1.0
COPPER (10/20) ¢/lb.	128.3	132.9	–4.4
ALUMINUM (10/20) ¢/lb.	83.5	85.0	2.7
WHEAT (10/20) # 2 hard, $/bu.	2.73	2.81	–37.0
COTTON (10/20) strict low middling 1-1/16 in., ¢/lb.	69.02	69.25	0.2

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Ch yea
STOCK PRICES (10/19) S&P 500	303.83	302.89	
CORPORATE BOND YIELD, Aaa (10/19)	9.57%	9.59%	
INDUSTRIAL MATERIALS PRICES (10/19)	106.7	107.7	
BUSINESS FAILURES (10/12)	297	296	
REAL ESTATE LOANS (10/10) billions	$382.0	$381.4	
MONEY SUPPLY, M2 (10/8) billions	$3,340.3	$3,327.0r	
INITIAL CLAIMS, UNEMPLOYMENT (10/6) thous.	395	397	

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), D
Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR se
ally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Ch yea
CAPACITY UTILIZATION (Sept.)	83.6%	83.6%	
CONSUMER PRICE INDEX (Sept.)	132.7	131.6	
MERCHANDISE TRADE BALANCE (Aug.) billions	–$11.2	–$11.0	
ORDERS FOR DURABLE GOODS: MFG. (Sept.) billions	$124.9	$127.1	

Sources: Federal Reserve Board, Treasury Dept., BLS, Commerce Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Ch yea
MONEY SUPPLY, M1 (10/8)	$821.9	$828.8r	
BANKS' BUSINESS LOANS (10/10)	317.3	318.9r	
FREE RESERVES (10/17)	568	651r	
NONFINANCIAL COMMERCIAL PAPER (10/10)	156.2	156.3	

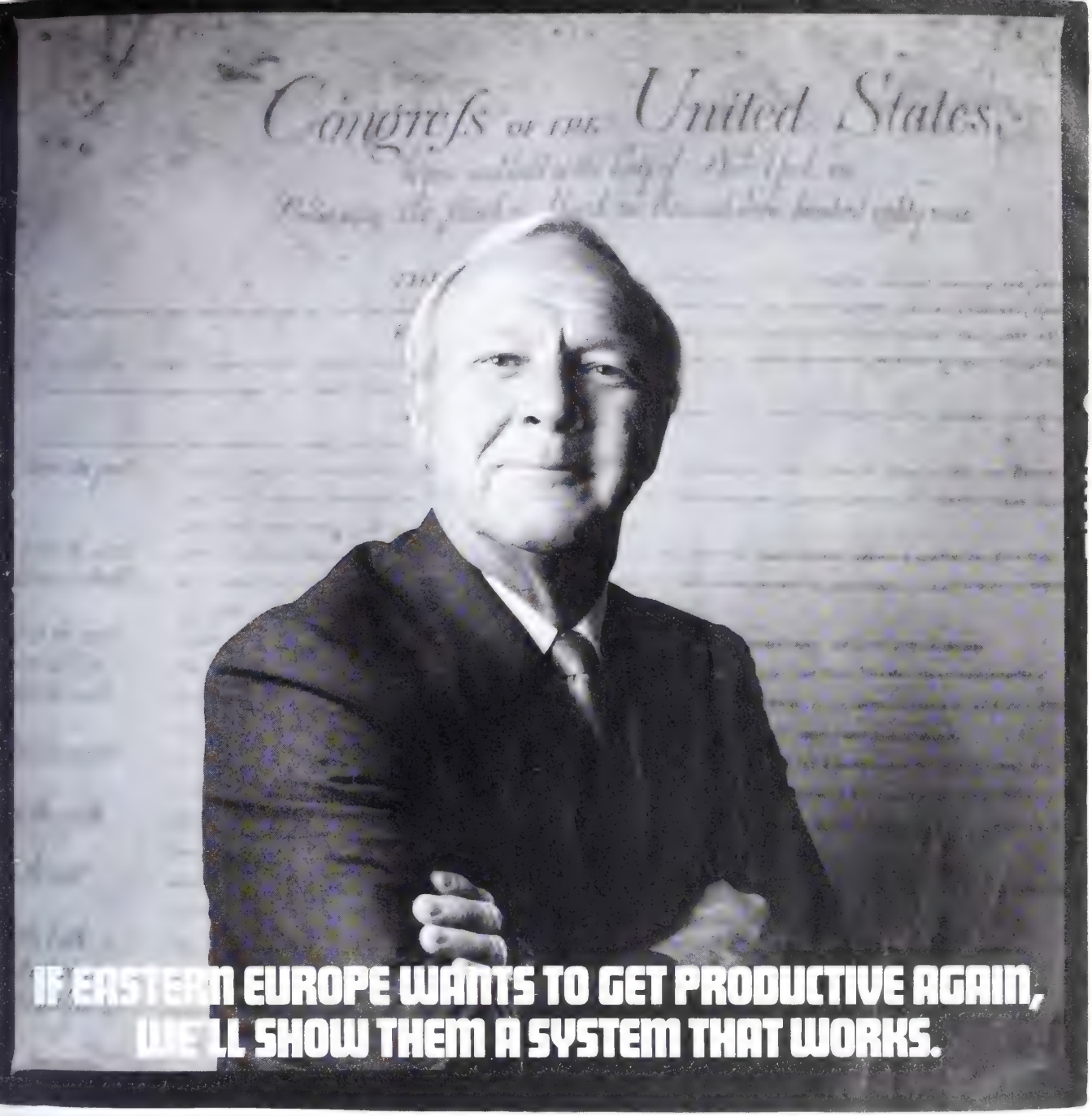
Sources: Federal Reserve Board (in billions, except for free reserves, which are express
a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Y
FEDERAL FUNDS (10/23)	7.93%	8.01%	8.
PRIME (10/24)	10.00	10.00	10.
COMMERCIAL PAPER 3-MONTH (10/23)	8.03	8.03	8.
CERTIFICATES OF DEPOSIT 3-MONTH (10/23)	7.55	7.50	8.
EURODOLLAR 3-MONTH (10/17)	8.13	8.11	8.

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equip
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful



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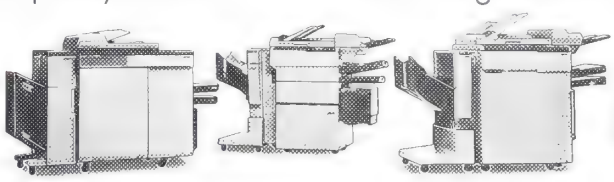

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These Days When A Worker Has An Accident, Ev

The Workers Compensation System was designed to help injured workers get well, and return to work. In most states, it does. In other states, the problems aren't simply big. They're enormous.

And beginning to spread into other states. Right down the line, everybody's starting to feel the effects—from the workers, to their families, to the employers, to the insurers.

The System

Over 75 years ago, when it was created to protect workers from on-the-job injuries, Workers Compensation was based on some well-intentioned and well-received ideas:

To prevent work-related accidents from ever happening.

To give prompt, quality medical attention and equally prompt income benefits.

To rehabilitate injured workers and hel them get back to work.

To offer cost stability to the employer.

And ultimately, to keep the entire worl productive—the less down-time, the more you have to be competitive, and stay compe

The Obstacles

It bears repeating: There are problems. problems, in many states, that need fixing. also need to strengthen the system so that t problems don't spread to other states.

Problems like unnecessary, time-consu litigation. Soaring claims costs. Underfunde understaffed state-administered agencies. A on a national level, runaway medical costs.

Fact is, the economies of entire states a

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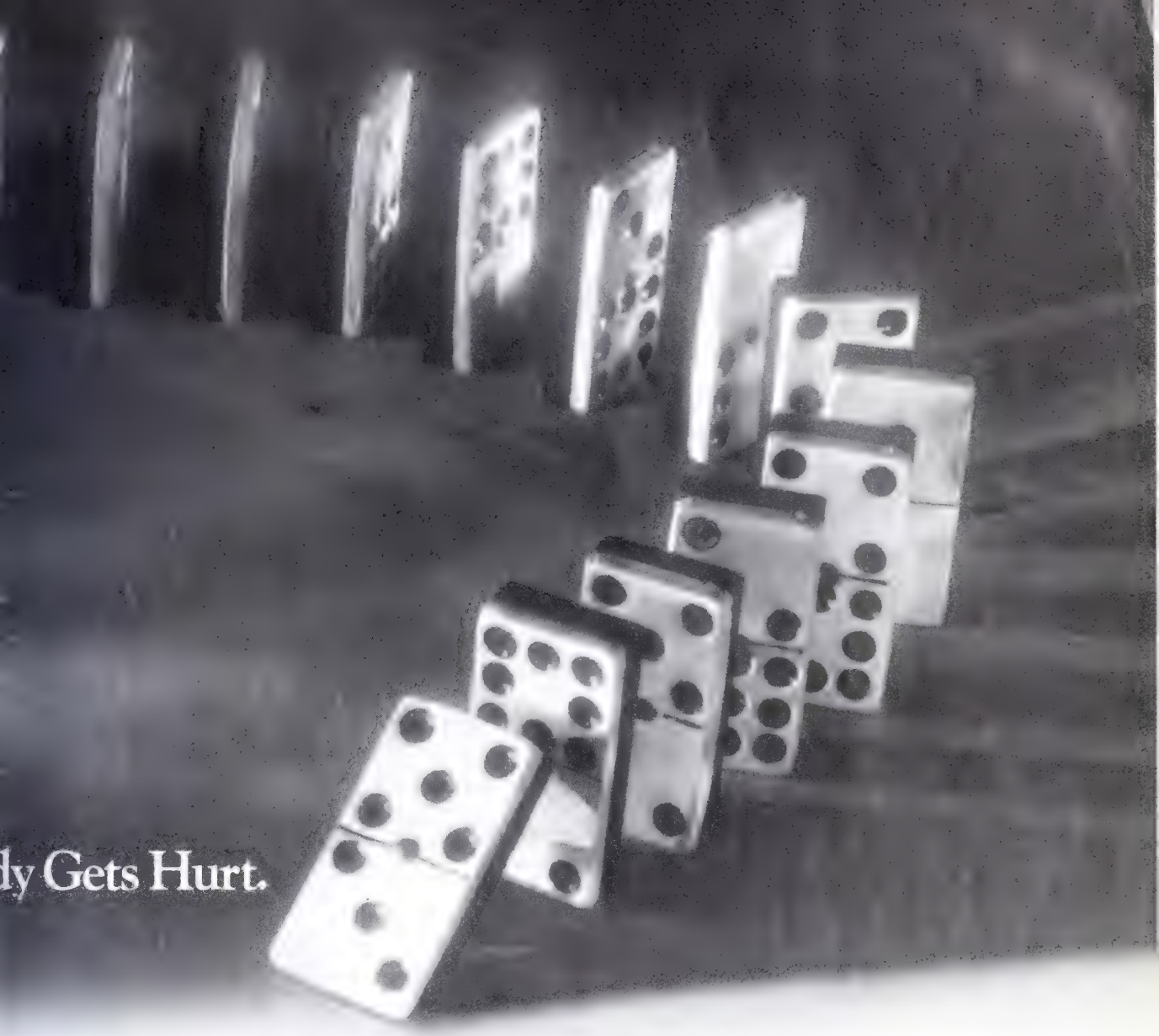

ng—partly because businesses won't relo-
n places where Workers Compensation is
array.

For some states, the situation is so critical,
ers have stopped writing Workers Compen-
n Insurance altogether—premiums won't
cover losses and expenses.

The Way To Help

What can *you* possibly do to help? You'd be
ised. To help restore and strengthen the
m in your state, you can take two courses of
n.

First: Be aware. Find out what's happening
ur state, how you're affected, and what you
o to help. Talk to your insurance company
siness trade association.

Or two: Share your views by writing to Gary Countryman, President and CEO of Liberty Mutual, 175 Berkeley Street, Boston, MA 02117. We'll help you get in touch with people in your state who can help.

When strong and fit, the Workers Compensation System works hard, and works well. Everyone it touches, it benefits—especially the injured worker.

Which is why, considering all it stands for, we should do everything possible to keep it standing.

LIBERTY MUTUAL

Help Strengthen Workers Compensation.

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Readers Report

JACK KEMP: THE HUD CLEANUP IS GOING JUST FINE, THANKS

Your article "The crowd stops roaring for Jack Kemp" (Government, Oct. 8), suggesting that my efforts to clean up the Housing & Urban Development Dept. have paralyzed the agency, leaves a distorted picture, at best, of my first 18 months at HUD.

First, you blast HUD as a "feeding trough for politically connected developers and consultants" during previous Administrations. Then, you criticize me for cleaning up the slop. Well, you can't have it both ways.

I make no apologies for the fact that HUD has become paralyzed for political consultants and developers who got used to cutting backroom deals—which created bulging bank accounts but no jobs or housing opportunities for low-income families. If a few complaints by "agency watchers" who no longer have special access to HUD officials is the only price I have to pay to restore accountability and integrity to HUD's programs, then I consider it a bargain.

I am not claiming that HUD under Jack Kemp is perfect. I do believe, however, that our work to reform a scandal-ridden agency and redirect HUD's programs to improve the lives of low-income Americans rather than the bank accounts of developers and consultants deserves a fairer hearing than the one given it by BUSINESS WEEK.

Jack Kemp
Secretary, Housing & Urban Development Dept.
Washington

FOR CONGRESSIONAL COMMITTEES, LESS IS MORE

Committees are an excellent means to accomplish many important tasks ("The budget is a symptom—the system is the disease," Top of the News, Oct. 15). As a committee member, I have spent a great deal of time discussing "the big picture," listening to great stories, and exchanging platitudes, but I've never spent much time getting anything done. The larger the committee, the less seems to happen.

Congress is an unusually large c
mittee that, unfortunately, confi
these observations. One simple conc
applied liberally to this rotundrous c
mittee, would go a long way tow
shortening its response time and sh
ening its focus: Less is more.

We don't need more subcommitt
and subcommittee chairmen, we n
fewer. We don't need larger congres
nal staffs and more Sam Rayburn of
towers, we need to save those doll
We don't need to pay our represe
tives more money, we need to cut t
hours and make them go home to w
in the same world I do.

Richard L. Hib
Raleigh, N

SOME FOOTNOTES TO THOSE PC DATA-BASE SERVICES

Your article "Everything you alw
wanted to know—by PC" (Perso
Business, Oct. 1) contained errors.

The Source was bought out by C
puServe months ago and merged
CompuServe. Thus, it no longer exis

GEnie charges $6 an hour for full
vice, rather than offering a flat
"per month for unlimited time" as d
Prodigy. GEnie offers a limited ser
(no software downloads, plus other l
tations) called Star Service for $3.9
month. It features news, weather, e
tronic mail, etc.

David Batter
Sausalito, Ca

IS CORPORATE JAPAN UNFAIR TO THE JAPANESE?

Regarding your article "There
capitalists, then there are the Ja
nese" (Economic Viewpoint, Oct. 8),
reality is that Japan more closely res
bles a concession system in which c
petition is stifled and the few profit
the expense of the many. This is not
sort of supersystem we should seek
emulate.

In short, corporate Japan serves
ther its consumers, who pay artifici
inflated prices for almost everythi
nor its shareholders.

Sooner or later, the Japanese pe
will realize that it's possible for

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NOVEMBER 5, 1990 [illegible]3186
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in accordan
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TEANECK, NJ

Now that
afford a Macintosh, wh

This is all of them. From left to right: The new Macintosh Classic, the well established Macintosh SE/30, the Macintosh Portable, the new Macintosh LC, the

In 1984, Apple introduced the first Macintosh® on the simple premise that people shouldn't have to learn to work with computers.

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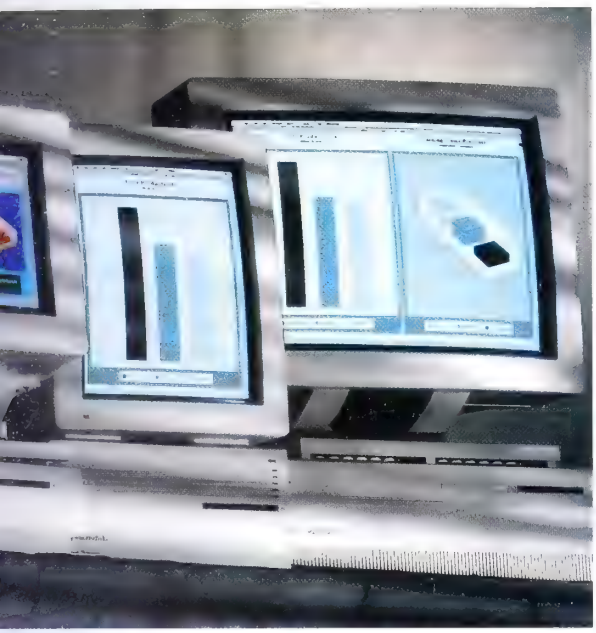
The charts, however, figures included in a 1990 study conducted by Diagnostic Research Inc. among Fortune 1000 MIS managers familiar with Macintosh and MS-DOS or Windows systems. Call and ... to a Mac Macintosh, and "The power to be your best" are registered trademarks, and SuperDrive is a trademark of Apple Computer Inc. MS-DOS and Windows are registered trademar

ybody can one should you afford?



Macintosh IIci, and the Macintosh IIfx. Have we left anybody out?

The Macintosh LC.

The new, low-cost Macintosh LC introduces isite Macintosh color and graphics to a wider d. With its 16 MHz 68020 processor, it runs all housands of Macintosh programs at impressive d. And, with an optional Apple® IIe Card, it runs sands more Apple II applications as well. The intosh LC expands by adding a card to its stan- slot. A 40MB internal hard drive is standard. built-in video chip runs either an Apple mono- me or low-cost color monitor—without adding eo card. And the Macintosh LC, like the Mac IIsi, lets you record your voice and other sounds the computer. Which will soon make voice- otated software a standard Macintosh feature.

The Macintosh IIsi.

Running a 20 MHz 68030 microprocessor, the Macintosh IIsi delivers serious number-crunching at the most attractive possible price.

Into its sleek package are compressed all the powerful essentials of the Mac II line. Including an optional 32-bit NuBus™ slot supporting high-performance graphics and accelerator cards. Along with advanced networking systems like Ethernet and Token-Ring. Plus a 40 or 80MB hard drive. Built-in video chips drive four different Apple monitors.

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In 1984, we offered only one Macintosh. As of today, you can choose from seven different models.

Although they include some of the most powerful personal computers ever made, they all run with the same point-and-click simplicity. The way a computer system should work, of course.

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common man to prosper and not merely survive. They will expect more from their economy than job security—they will demand their fair share of what they produce.

When the Japanese come to that realization, *keiretsu* will topple, and the people will adapt their economy to a consumer-driven system that is very much in line with the principles of Adam Smith.

Randy Young
Chairman
Everhart Corp.
Santa Ana, Calif.

APPLE: YESTERDAY'S BUSINESS TOMORROW?

As a PC user, I had to laugh at Apple Computer's plan for a fall lineup, the "star" of which will be an 80386 type of system ("Apple: New team, new strategy," Cover Story, Oct. 15).

For about $2,000, I can buy parts off the shelf from any one of dozens of electronics suppliers and build a more powerful system myself than the Mac IIsi is right now. With 80486 PCs readily available—and probably an 80586 in the wings—Apple is preparing to launch yesterday's business in January, 1991.

John E. Johnson Jr.
Redwood City, Calif.

A WORD OF CAUTION ON GAUGING PRODUCTIVITY

Your recent article "The surge in factory productivity looks like history now . . ." (Economic Trends, Oct. 8) states that "the latest [productivity] numbers could signal a reversal in what only a few years ago appeared to be a remarkable resurgence in American industrial productivity." Although this may be true, one should be careful not to make too much out of temporary changes in productivity.

Indeed, labor-productivity growth usually follows the business cycle: It's fast during business expansions and slow during slowdowns. This is not surprising given that businesses can use their overhead labor more intensively during booms. But it does not necessarily say much about productive prospects for years to come.

The slowdown in productivity during the past two years could very well be a purely cyclical phenomenon. What would signal a lasting reversal in productivity would be a more pronounced slide t expected, given the slower growth manufacturing. This remains to shown.

Mohamad L. Hamm
Assistant Professor of Econon
Columbia Univer
New Y

SHARPENING THE FOCUS ON QVC NETWORK

Your article "Home shoppers k tuning in—but investors are tur off" (Marketing, Oct. 22) contained s eral errors in comparisons of QVC N work and Home Shopping Netw (HSN).

QVC has not offered stock options cable operators since 1987. In sub quent years, QVC offered convertible p ferred stock to cable operators, but such offerings have been completed. does not currently offer any equity p to cable operators and has no plans to so in the future.

When comparing the revenues of and HSN, it should have been noted t QVC's reported revenues, unlike HS are net shipping-and-handling revenu Moreover, you failed to note that H

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As you turn the wheel of a Prelude Si with 4WS, all four wheels respond. Without hesit

es not only around 21 million cable
s but also 30 million to 40 million
ouseholds through the HSN-con-
d UHF stations.
should also be noted that Joan Riv-
as selected QVC (not HSN, as stated
blurb in some editions) as the exclu-
elevised-shopping network to pres-
er new line of fashion jewelry.

Joseph M. Segel
Chairman/CEO
QVC Network Inc.
West Chester, Pa.

. A FAN HASE MANHATTAN

quote was attributed to me in "Ag-
ony at Chase Manhattan" (Top of
News, Oct. 8). But far from being
ure" about its future, I believe I
ated in my conversation with your
ter that:
ase's situation reflects a general de-
ation in both the dollar and the
economy.
money-center banks are, therefore,
sarily in the process of reexamin-
heir positions.
y move toward a merger by Chase
be done only when opportune and
a position of strength.
ase's restructuring will proceed with at least the same success experienced at Bank of America.

■ In Thomas Labrecque and Arthur Ryan, Chase has the excellent leadership needed to redefine its directions.

My position was and remains positive and optimistic regarding Chase's future.

Frederick S. Hammer
President
Wealth Management Services Inc.
Wayne, Pa.

TAIWAN'S JACK SUN BEGS TO DIFFER

In "Taiwan's billions are hitting the road" (Economics, Sept. 17), you generally fail to understand Pacific Electric Wire & Cable Co.'s strategy for U.S. investments and make misstatements about our ownership and operation of Texas-based Pacific Southwest Savings Bank. First, our investment in Pacific Southwest is a "stand-alone" banking investment—not a vehicle to facilitate other investments. Second, the acquisition was not made mainly as a source of tax credits and in fact has not been used for that purpose. Third, while we do not participate in day-to-day bank management, the Taiwanese members of the bank board have a commitment to hands-on participation in management through exercise of board responsibilities. Finally, we have not delegated any management functions to Peat, Marwick, Mitchell.

Jack Sun
President
Pacific Electric Wire & Cable Co.
Taipei

'SEVEN-PAY LIFE' ISN'T ALL THAT NEW

Regarding your article "New life insurance you can borrow from—tax-free". (Personal Business, Sept. 17), I feel that to call "seven-pay life" insurance products new is incorrect. Many companies call the lump-sum annuity different things, such as "premium-deposit fund" or "lump-sum deposit account," but all have been using the concept for years, mainly to prefund at a discount the insurance premiums over a given time period.

Timothy M. Donovan
Chartered Financial Planner
CIGNA Individual Financial Services Co.
Pittsburgh

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N.Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

ly
itched
nes.

And driving has suddenly changed. HONDA

Taking up wh

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When it comes to inventiveness, nature is hard to beat. Examples from the mineral kingdom alone attest to an extraordinary range of creativity.

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_____ Mineralogists have categorized over 2,000 minerals with an amazing variety of characteristics.

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POWERSHIFT: KNOWLEDGE, WEALTH, AND VIOLENCE AT THE EDGE OF THE 21ST CENTURY
By Alvin Toffler
Bantam Books • 585pp • $22.95

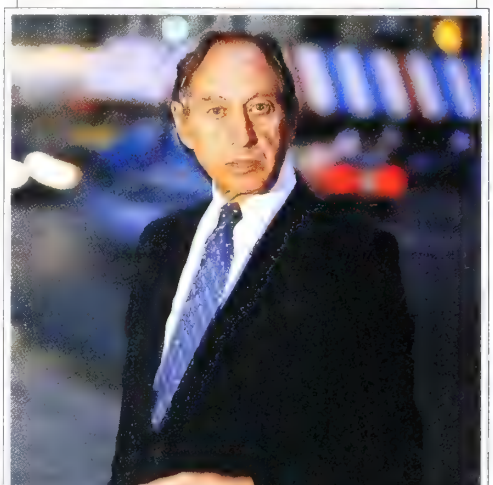
HE SHOULD HAVE CALLED IT *BACK TO THE FUTURE SHOCK*

Right from the start, *Powershift* comes off more as a feverish pulp novel than as the scholarly tome futurist Alvin Toffler insists he has written. The table of contents, running nine pages, suggests a lurid world of drugs, sex, violence, and espionage. What else shall we make of such headings as "Blood and Snow-Money," "Tampons and Car Rentals," "The Scent of Miss America," "The Paradox Bomb," "Meat-Cleaver Management," and "Line X versus James Bond"?

Vivid phrase-making should be welcome in a book with such intellectual pretensions. (Noting that *Powershift* is the third in a trilogy begun with 1970's *Future Shock*, Toffler proclaims that his "sweeping synthesis . . . is now complete.") Unfortunately, Toffler can't seem to construct a coherent argument as well as he can coin terms such as "info-warrior" and "eco-spasm."

Toffler promises to analyze the shifting relationships among knowledge, wealth, and violence, which he describes as the three historical forms of power. He also claims to break new ground in describing an emerging "super-symbolic system for wealth creation" in which electronic blips on a computer screen become the true medium of exchange—what used to be called the "information economy." In fact, he marshals a scattered collection of sometimes entertaining anecdotes, wild generalizations, cloying jargon, and frequent hedging to support a tired and rather trite point: Everything's changing, profoundly and more than ever. Not so different, really, from what he had to say in *Future Shock*.

That book, which has sold an estimated 7 million copies worldwide, caught the public's imagination with its engaging description of impermanence brought on by unfettered technological change. Now, with little new to say, Toffler relies on hyperbole. No matter what he's discussing—schools, the corporation, international relations, ecology—he finds that it's disintegrating, fracturing, upheaving, colliding, exploding, shaking up, or breaking up. Either that, or it's being revolutionized, dislocated, or "massified." And all in a way that's accelerating, shocking, deep, and perilous.



TOFFLER: WEIGHED DOWN BY HYPERBOLE

One tires quickly of this breathlessness and of Toffler's short, repetitive paragraphs and his dozens of near self-contained subchapters, which are only cursorily related to their neighbors. Although Toffler lists 592 books in his bibliography, he seems to be writing for those used to zapping their way across the multichannel wasteland of cable TV.

As in *Future Shock* and its 1980 successor, *The Third Wave*, Toffler cites powerful information technologies such as television and computers as wreaking most of the "ravaging" change he sees everywhere—an observation which, though not new, has some merit. The machines are indeed ushering in a world in which masses of words, numbers, and images are available at the push of a button—a shift of as much magnitude and significance as the move from preliterate, oral culture to the world of mass-printing and book.

Toffler tries to distinguish among "data," "information," and "knowledge," then declares he'll use all three interchangeably—"even at the expense of rigor." Such hand-waving allows him to explain everything from new ways of manufacturing to the upheavals in Eastern Europe in terms of knowledge. But as he reduces everything to knowledge, he in fact illuminates nothing.

If you want to read a splendidly original, historically informed essay about the social changes wrought by new media, check out *ABC: The Alphabetization of the Popular Mind*, by Ivan Illich and Barry Sanders (North Point Press, 1988; now a Vintage paperback). There you'll find rigor, brevity, and sincerity that underscore the failure of *Powershift* to move beyond catchy phrases and a recitation of the obvious.

BY JOHN W. VER
Verity covers Information Process

BOOK BRIEFS

EMPTY LESSONS

INSIDE THE HARVARD BUSINESS SCHOOL
By David W. Ewing
Times Books • 292pp • 19.95

Inside the Harvard Business School does not equivocate. HBS, it begins, "is probably the most powerful private institution in the world. . . . Its 50,000 graduates wield enormous economic and political clout. . . ." Moreover, the school "has become essential to the United States' welfare and survival as a world-class power."

Many executives have embraced that exalted vision, of course. But even they might expect David W. Ewing, as a longtime editor of the *Harvard Business Review*, to deliver some hard-edged revelations about the school. It never happens: Although Ewing was pushed aside when Theodore Levitt took over the *Review* in 1985 (Ewing soon left), he writes as though he does PR for the school.

Beyond the unrelenting paean, Ewing purports to tell what and how Harvard teaches. But his lessons are either summaries of what have become standard management techniques or meaningless reviews of various professors' work. Similarly, he tries to distill Harvard's learning process into management wisdom. Some of his anecdotes are colorful, but his conclusions are weak: Harv students learn to communicate, for ample, and "good communications ar 'must' for U. S. organizations."

We're taken through corporate cruiting, faculty lunches, and the ten process. Except for a controversial in pretation of recent changes in the view, however, it all reads like text fo promotional video. But what's really some is Ewing's notion that America in good hands with HBS grads runn its businesses. Talking in dire terms America's war with foreign rivals, seems unaware of who has been lead the losing battles of the past decad Must have been those Stanford guys

BY KEITH H. HAMMON

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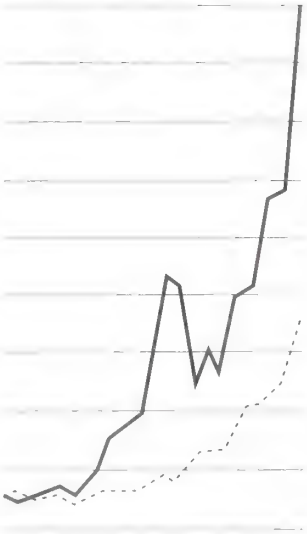

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--- Total return on the Standard & Poor's 500 Composite Index, with dividends reinvested.

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Books

BY BUSINESS WEEK WRITERS

INSIDE THE AIDS WAR

GOOD INTENTIONS
By Bruce Nussbaum
Atlantic Monthly Press • 352pp • $22.95

In the early 1980s, New York's community first noticed signs of deadly scourge that AIDS would s become. Doctors in Greenwich Vill were seeing young men suffering fr a rare form of pneumonia, an even ra cancer—Kaposi's sarcoma—and a h of other debilitating infections. With drugs to cure or control what was ev tually recognized as the underlying ease, these doctors were virtually armed at the front lines of battle.

The federal government, which mi have helped provide an arsenal, was excusably slow to act, charges Br Nussbaum in *Good Intentions: How Business and the Medical Establ ment Are Corrupting the Fi Against AIDS.* Nuss-

baum, a BUSINESS WEEK senior writer, asserts that the hunt for AIDS drugs has been driven more by the pursuit of money and fame than by concern for victims.

Nussbaum centers his attack on scientists from the National Institutes of Health, who, he believes, sold their collective soul to AZ the first and still the only approved A drug—and to its manufacturer, roughs Wellcome Co. Drugs that di originate in a major company, he s were shunned by NIH investigators.

Faced with government ineptitude the epidemic nature of the disease band of AIDS sufferers, community tors, and gay activists began organiz Nussbaum chronicles the formation potent political alliance that changed way drugs are tested and made av able. It pressured companies to offer approved drugs to the critically ill, manded representation on committ overseeing government trials, and ca for more research on the opportun infections that plague AIDS sufferers

Nussbaum's assertions of biased search and his implied opposition to use of AZT by those who harbor the virus but have no symptoms are bo to stir controversy. But there's no a ing with his view that the heroes of AIDS crisis are the intrepid few who ly on organized to demand governm action.

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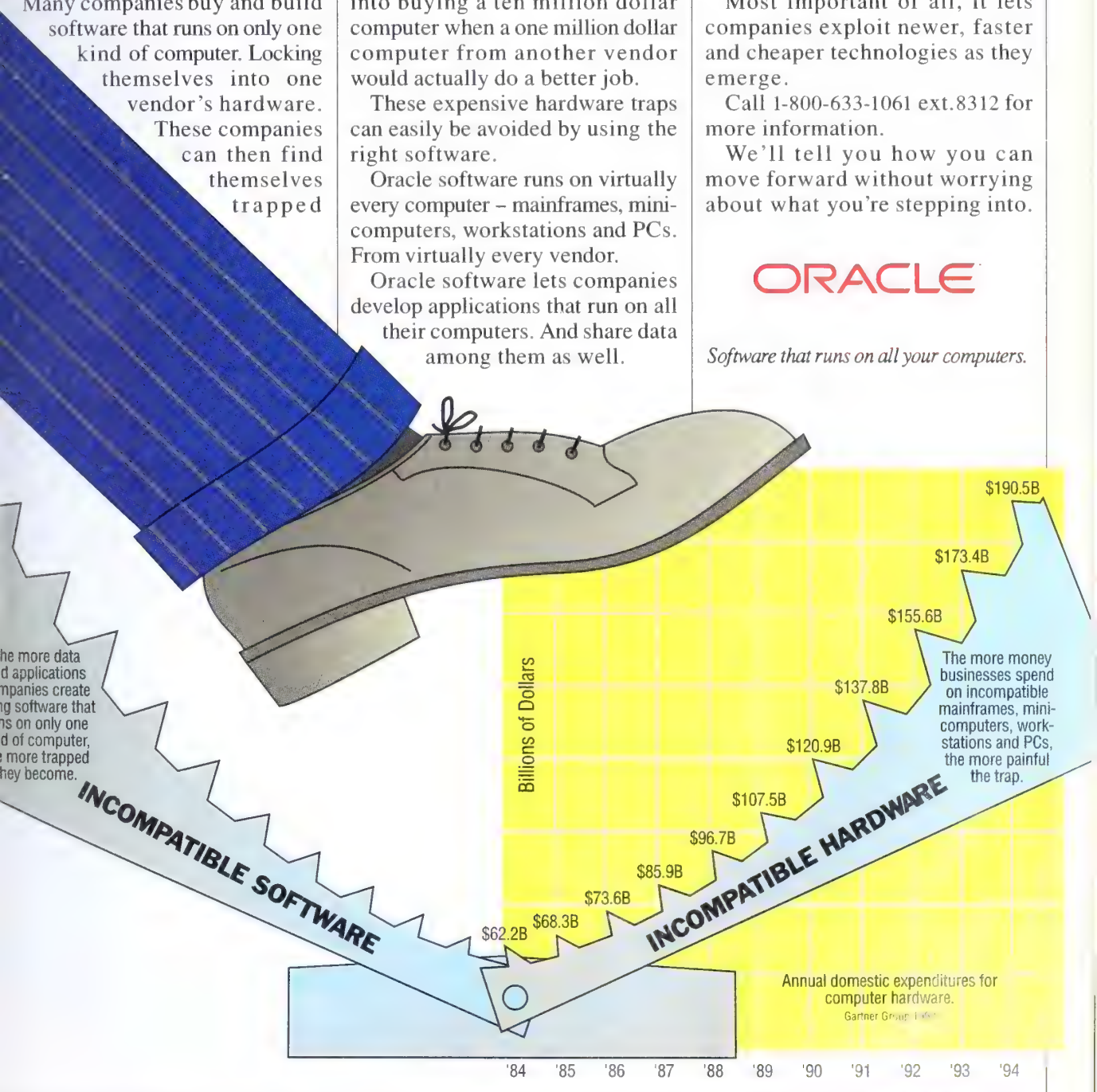

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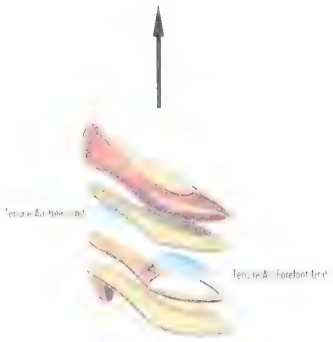
[Gravity] *It's what's wrong with every pair of shoes you've ever owned.*



Most people are content
making shoes that
fit feet, but we make shoes
that also fit the planet.
Shoes that fight gravity
where it lives.
Shoes with Tensile Air™
units from Nike. Basically,
we took everything we
learned from making
athletic shoes and squeezed
it down to an
eighth of an inch so it fits
beautifully into
shoes by Cole Haan. You
can't see Tensile Air,
but you'll know it's there.
Unfortunately, the
same can be said of gravity.

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available only in the
Cole Haan Tensile Air
Collection]

Introducing [Tensile Air™] *Defy gravity.*
created by Nike

CREATED BY NIKE

THERE ONCE WAS A NATION THAT PAID ALL ITS BILLS . . .

BY ALAN S. BLINDER

In the beginning, people worshiped at the altar of the balanced budget. But once they were persuaded of the virtues of deficits, all it took was a few choruses of 'No new taxes' to get one democracy in a very deep hole

Once upon a time, there was a great democracy on the shores of the Atlantic and the Pacific oceans. Its people were industrious and fiscally pious. They knew that government must pay for what it buys. So they worshiped at the shrine of the balanced budget.

Although their innate pragmatism often permitted modest budget deficits, the accumulated national debt amounted to little until the Great War.

There was a small tribe of economists in the land, some of whom called themselves "Keynesians." They said that a balanced budget was a false idol whose worship was folly. Blind devotion to budget balancing could undermine the nation's prosperity, they argued. The right fiscal policy might mean deficits in some years and surpluses in others. It all depends on the relative volumes of private saving and spending, and on the need for investment, they insisted.

As examples, the economists noted that deficits were appropriate when an economy was depressed or when wartime brought extraordinary expenditures. (Their descendants would later argue that surpluses were appropriate when a nation was building a social security fund.) They claimed that the Great Depression and World War II proved the validity of their heretical views.

At first, the people did not listen. They knew in their hearts that balancing the budget was the right thing to do. Gradually, however, the economists began to win converts. After several decades, a young leader, John, was persuaded of the virtues of unbalanced budgets under certain circumstances. He tried to convince the people with little success. Still, the new view gained momentum and by the late 1970s was widely accepted. Although the people continued to worship ritualistically at the balanced budget altar, no one took it seriously anymore.

THE TAX SHRINE. Then came a charismatic new leader from the palisades of the Pacific. Ronald paid homage to the balanced budget with a piety not seen in years. This endeared him to the people. But his deeds belied his words. He cut taxes to the bone (which also endeared him to the people) and equipped his army grandly, thereby producing deficits previously undreamed of. But the people were happy and soon lost interest in the budget. Ronald himself ceased worshipping the balanced budget idol and worshiped low tax rates instead.

In fact, a new budgetary norm emerged. During the 1980s, government expenditures exceeded revenues by an average of 22%. So the people began to believe that each $1 of taxes bought them $1.22 of public services. T pleased them. The archaic notion you must pay for what you get see . . . well, archaic. And Ronald told t that all taxes are harmful—even if government must borrow mightily pay its bills.

Now, the great democracy had a p ical problem. Its government could continue to borrow vast sums fore But any plan to reduce the deficit e ed howls of "pain with no gain." If government cut a program or raise tax, what would the people get in turn? A move closer to a balanced b get idol in which no one believed more? This struck the nation's p cians as a bad bargain.

OLD MANTRA. The small tribe of ec mists also had a credibility probl Having spent four decades argu against balanced budgets, they w now urging the nation's leaders to duce the deficit. The people were fused. Why this change of heart? M bers of the tribe tried to explain t shrinking a huge deficit need not m bringing the deficit to zero. But t were not great communicators and w not heard. Naturally, the politicians nored the economists and let things ceed as they were.

Into this confused environment ca a new leader, George, sporting an mantra: "No new taxes." The pe liked what they read on George's Soon he was basking in the glow of loping polls, and almost everyone fo about the deficit—except a few stude of the budget, who saw an ominous d rioration. By 1990, George saw it, and accepted a bipartisan agreement raise taxes and cut spending. Unfo nately, his antitax rhetoric backfired

The people had been convinced that taxes were evil and that the governm could deliver $1.22 worth of services every $1 it took in. They applied the f of these "lessons" even to levies on c rettes and alcoholic beverages. No ever explained how taxes on goods t foster illness and inebriation could st economic growth, but the people did want them, anyway. Nor did they w their gasoline taxed, even though supply was heavily influenced by a eign tyrant. Fingers ever to the wi politicians deserted George and ot leaders who proposed raising such ta and cutting expenditures. For a wh the government of the great democr actually shut down.

The impasse was eventually finess But many years passed before public derstanding of the budget deficit turned to the meager level that had b achieved in the late 1970s. And the b get deficit lived happily ever after.

ALAN S. BLINDER IS THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR OF ECONOMICS AT PRINCETON AND THE AUTHOR OF *HARD HEADS, SOFT HEARTS*

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Arthur Beren Union Square - San Francisco
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Marcello's - Newport Beach
Cole·Haan - Beverly Hills
COLORADO
Porter's Place - Denver
CONNECTICUT
Grossman's - Greenwich
Saks Fifth Avenue - Select Stores
FLORIDA
Harold Reason Shoes - Sarasota
Kemp's Boutique and Shoe Salon - Vero Beach
Kemp's Shoe Salon - Delray Beach
Macy's - Select Stores
GEORGIA
Globe Shoe Company - Savannah
Macy's - Select Stores
Saks Fifth Avenue - Select Stores

ILLINOIS
Cole·Haan - Chicago
INDIANA
De Jong's - Evansville
Jacobson's - Indianapolis
LOUISIANA
Macy's - Select Stores
MAINE
Cole·Haan - Freeport
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MINNESOTA
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MISSOURI
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NEW JERSEY
Macy's - Select Stores
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NEW YORK
Heller's Shoes - Mt. Kisco
Macy's - Select Stores
Saks Fifth Avenue - Select Stores
The Shoe Box - Manhasset
Cole·Haan - New York City

NORTH CAROLINA
Belk - Select Stores
OHIO
Arnold's Shoe Salon - Beachwood
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Rothschild's - Select Stores
PENNSYLVANIA
Saks Fifth Avenue - Select Stores
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RHODE ISLAND
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TEXAS
Fairboot - Fort Worth
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Bullock's - Select Stores
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Saks Fifth Avenue - Select Stores
Cole·Haan - Beverly Hills
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Stackpole Moore and Tryon - Hartford
FLORIDA
Maison Blanche - Jacksonville
Macy's - Select Stores
GEORGIA
Andre Bellini - Atlanta
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De Jong's - Evansville
KANSAS
Gordon's Shoes - Wichita
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Macy's - Select Stores
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ENE KORETZ

OK WHO'S BEING GHTFISTED ABOUT ARITY GIVING

emember the "thousand points of light" extolled by Presidential candidate George Bush in his reference to ricans' spirit of mutual concern and fice in tackling the nation's social ems? In light of the economic burcarried by average Americans, you d think the brightest of those lights d be found burning among our affluent citizens.

ter all, it was this privileged group gained the most during the past de. Since 1980, the top 1% of Amerifamilies have seen their average real tax income soar by 86% and their of all family income by 50%, to , according to Congressional Budoffice data. By contrast, the real an family income rose just 4.2% durhe 1980s, and 40% of families expeed a real aftertax income decline.

spite this shift in income distribuhowever, it is generally average ricans rather than the wealthy who igging deeper into their pockets for

table and other nonprofit causes. nal Revenue Service data indicate, example, that itemizing taxpayers adjusted gross incomes of $25,000 0,000 raised their average donations % between 1980 and 1988 (to $1,075 $665) despite tax changes that contributions more costly to do- And a recent Gallup Organization y found that the average contribuby all households rose 20% in real s, to $734, between 1987 and 1989. contrast, IRS data indicate that the wealthy became considerably less generous. As the highest marginal tax rate plummeted from 70% in 1980 to 28% in 1988, taxpayers earning $500,000 to $1 million cut their average charitable donations from $47,432 to $16,062, while those with incomes over $1 million slashed theirs to $72,784 from $207,089 (chart). What's more, a mere 5% of those with incomes over $1 million account for half of all contributions by this highest-income group, notes Brian O'Connell, president of Independent Sector, a coalition of corporate and private foundations and major voluntary groups.

"We're seeing a new spirit of giving and caring across the nation," says O'Connell, "but the sad thing is that most of the truly wealthy are proving to be downright stingy." Management guru Peter Drucker is less charitable. He recently characterized the lack of generosity among America's rich as "our shame and disgrace."

BEATING THE STOCK MARKET— THE 'HOT-HANDS' WAY

An axiom of efficient market theory is that no one can consistently outperform the market. In fact, numerous studies have found that investment managers who do particularly well in one period often lag behind the market in subsequent periods. The catch is that some mutual stock funds do manage to beat the pack for a few years—an occurrence that seems more than a random streak of luck.

Whatever the cause, economists Darryll Hendricks, Jayendu Patel, and Richard Zeckhauser have capitalized on this "hot-hands" phenomenon to devise an investment strategy that seems to consistently produce superior returns. As described in a new National Bureau of Economic Research working paper, the strategy simply involves investing in a fund or small group of stock funds that performed best in the recent past. Then investors would periodically assess the performance of all similar funds and switch to the most recent winners.

The researchers looked at how this strategy would have worked on a group of 96 no-load growth funds from 1974 through 1987. They found that an investor who each year in the 14-year period had put money into the five funds that had racked up the highest returns in the previous year would have achieved average returns that were 5% to 10% higher than those posted by the Standard & Poor's 500-stock index. They also found that above-average returns can be achieved by switching to recently winning mutual funds every quarter or six months but that holding the same group of funds for over a year doesn't pay.

"Like baseball teams and pop singers," they warn, "stellar mutual funds typically fade away after a few years."

SOFT HOME PRICES FORESHADOW SOFTER CONSUMPTION . . .

The median price of existing homes sold in the U. S. slipped to $97,000 in August from $98,300 in July. Economist Richard B. Berner of Salomon Brothers calculates that, adjusted for inflation, this translates into a 4.1% drop from August, 1989—"the first significant year-over-year decline in real median home prices since the last recession." Meanwhile, the average price of existing homes has fallen even more in real terms—by a hefty 6.2%.

The fact that average prices are down more sharply, says Berner, indicates that there has been a shift in the mix of houses being sold and that expensive houses are now moving more slowly than more modest dwellings. And that could foreshadow significant cutbacks in consumption by those who traded up to bigger, more lavish homes in the 1980s. He notes that this group, many of whose members are middle managers, has been especially hard hit by recent layoffs.

"Soft home prices," says Berner, "can only heighten the sense of insecurity among these formerly upscale consumers, who must now worry about falling asset prices as well as job security."

. . . WHILE BANKS ARE GROWING WARY OF HOME EQUITY LOANS

One apparent casualty of the housing debacle is home equity loans. Economist Gary E. Schlossberg of Wells Fargo Bank points out that home equity and second mortgage lending in the first half of this year hit its slowest pace since the 1982 recession. The behavior of this loan category is particularly significant because it represents loans whose interest payments are still eligible for tax deductibility.

Schlossberg thinks the initial slowdown in home equity lending mainly reflected the household sector's growing reluctance to take on any form of new debt. Now, however, slipping home prices suggest that banks themselves are making it more difficult for consumers to tap the home equity till. ▣

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grams as fringe benefits. As the name
gested, benefits were of limited concern.
nefits managers presided over sleepy
rations that changed little from year to
r. Now those days are long gone.

Benefits are too expensive to be
ored. In 1988, companies spent $474 bil-
on benefits, according to the Employee
efit Research Institute, or about 16% of
l compensation. The figure contrasts
rply with data from 1960 when benefits only accounted for 8% of compensation.

The burden of benefits costs can be particularly great for U.S. companies facing foreign competitors. Chrysler Corporation spends $700 per car on health benefits, while overseas rivals only pay out $200 per car.

For many companies there is considerable temptation to increase bottom lines by cutting benefits to the bone. But consultants caution that arbitrary reductions in programs may be shortsighted. At a time when many industries may face labor shortages, benefits are becoming important tools for recruiting

EMPLOYEE BENEFITS

and retaining key employees. Cuts in health packages may be particularly risky. In the last several years, dozens of strikes have been triggered by disputes about health benefits.

To develop effective benefits packages, managers must understand their work forces. They must carefully consider the needs of employees and find the most cost effective way to serve them.

The task of managing benefits has become more difficult, since the work force is changing rapidly. As more women take jobs outside the home, employers have been forced to rethink health and child care benefits. Pension plans must be tailored to suit the needs of a generation of workers who want to control their own nest eggs. To keep up with changing conditions, benefits managers constantly develop creative approaches.

CONTROLLING HEALTH CARE COSTS

For benefits managers, the battle against health care inflation has been especially frustrating. Health insurance premiums rose 18% last year. Many companies reported increases of 20% to 30%, more than triple the rate of inflation in the overall economy. The surge in health costs follows several years of steep rises.

Faced with an expensive health system that fails to cover many uninsured people, some executives have urged that government take dramatic actions. Labor organizations have been calling for national health insurance. So far Congress has not been willing to adopt socialized medicine, though several bills have been introduced.

With most businesses favoring private sector solutions, observers now believe that there is not enough support for a major new government-run program. Any legislation Congress passes will likely rely on the private sector.

Those hoping for change eagerly awaited a proposal presented by the U.S. Bipartisan Commission on Health Care, a group that included 12 members of Congress and three Presidential appointees. Called the Pepper Commission after the late Rep. Claude Pepper, the panel issued a report in March. Under the proposal, large employers would be required to provide benefits. Those with less than 100 employees would be given tax credits to encourage them to offer health benefits. A government fund would cover poor people.

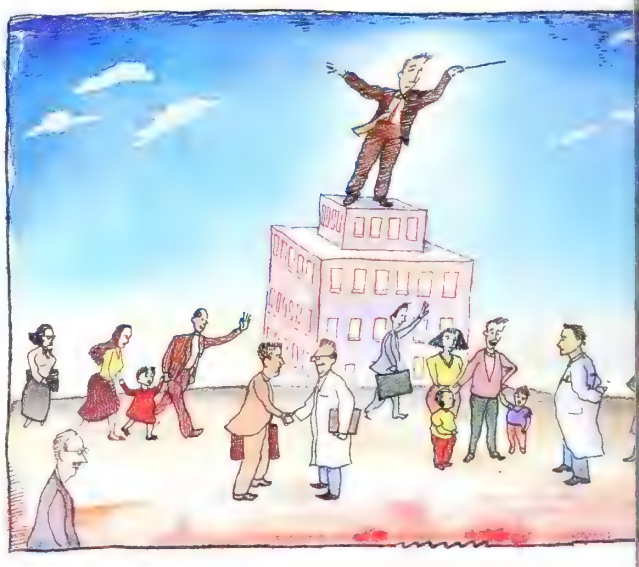
Some supporters had hoped that the Pepper Commission would serve as a basis for developing legislation that could attack the full range of health care issues. Now it seems unlikely that a comprehensive solution will emerge from Congress. "No one on Capitol Hill believes the report will be adopted in one piece," said Robert Laszewski, executive vice president-group markets of Liberty Mutual Insurance Company. "People are now trying to come up with a set of incremental steps that can be adopted gradually over the long term."

BUSINESSES TURN TO MANAGED CARE

With Congress reluctant to assume the leadership in the drive against rising costs, many executives believe that the only possible relief must come from increased use of what is called managed care. This approach limits a patient's choice of doctors and treatments.

The common vehicles for managed care are health maintenance organizations (HMOs) and preferred provider organizations (PPOs). Under these systems, employers have some ability to select and monitor the doctors who will provide care.

In contrast, traditional indemnity plans make no effort to control the care. Patients pick their own doctors, and insurance companies pay reimbursements for whatever services are provided. In the traditional plans, doctors have a financial incentive to do everything possible for the patient—no matter what the cost.



To develop effective benefits packages, managers must understand their work forces

HMOs are designed not reward doctors for providing ex services. In HMOs, doctors are eit on salary or they are paid a fixed per patient regardless of the amo of care provided. Patients assigned a primary care doctor w handles routine visits and deci whether to refer cases to specialists. employees, HMOs offer some savin Patients pay minimal out-of-pocket expe es. However, HMOs limit the choices employees. In order to receive covera patients must visit doctors at the HMO. some cases, employees may be forced abandon their long-time physicians.

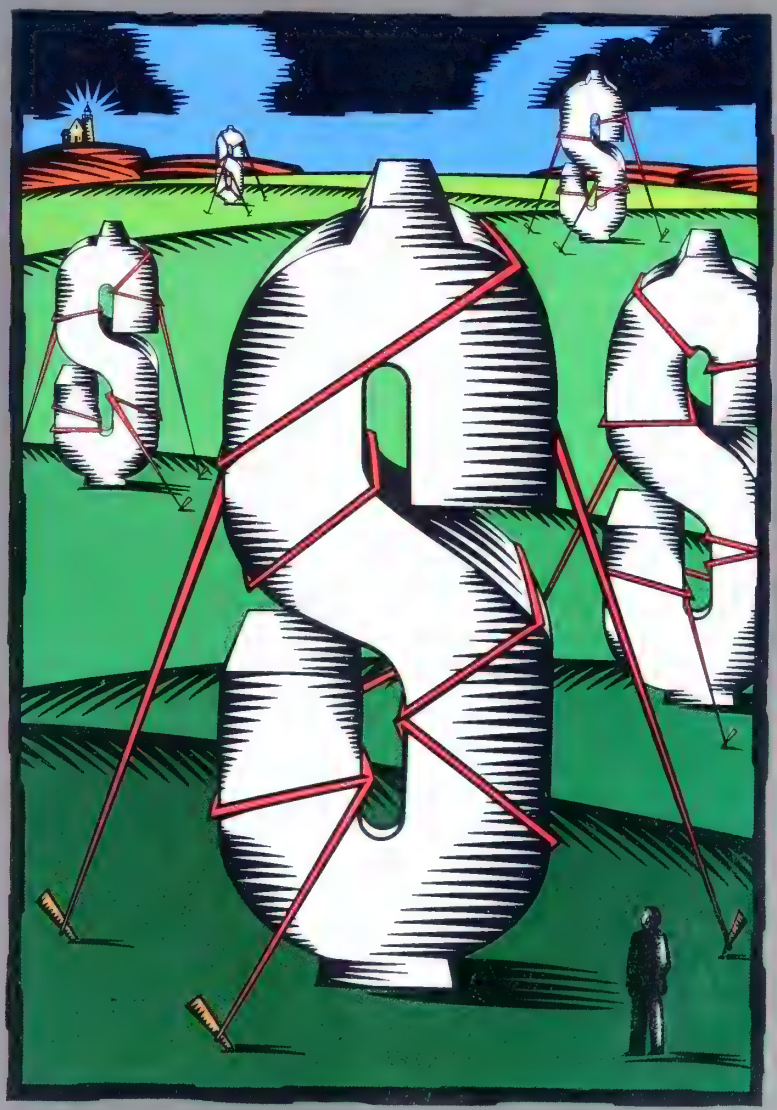
PPOs are designed to permit more fle bility. Employees pay limited costs if th use a doctor who is in the PPO group. employees can also see doctors not in group, though they will have to pay m out of their pockets. In addition, they m choose to visit a specialist without a refer from a primary care doctor. Most doctors PPOs are paid on a fee-for-service bas Cost savings may be achieved, since t PPO negotiates price discounts with doct in exchange for providing more patients.

However, not all managed care pr grams are successful. In some instanc organizations are not run tightly enoug Some PPO managers have accused doct of offering discounts and then compensati for the lost revenue by prescribing mo treatments for each patient.

For employers, it can be difficult measure the effectiveness of any one ma aged care operation. A variety of factors c distort results, making one organizati appear cheaper than another.

Companies typically offer sever

Who can improve your employee benefits without increasing costs?



different programs. Employees may select an HMO, a PPO or a traditional indemnity plan. In some cases it has appeared that many young healthy people have selected the HMO because it is cheaper for them. Older people who tend to be sicker select the traditional indemnity program so that they can stay with their long-time doctors. When such patterns of selection occur, the HMOs may appear to be much cheaper. The real impact on total employer costs is unclear.

Whether or not individual managed care programs are very successful, few employers are willing to abandon the efforts to control costs. Regardless of how they are structured, all the forms of managed care make some effort to monitor costs. They typically check patients to make sure that only necessary care is given.

One monitoring approach that is becoming increasingly popular is case management. In this technique, a staff member from a managed care organization is assigned to a patient with an expensive illness. The manager works with the patient and doctors to find the most cost effective and best treatment.

Case management has proved particularly effective in controlling the costs of premature births. With technological advances, doctors now can save many premature babies. But the cost of such difficult births can be hundreds of thousands of dollars.

Cost Care Inc., a subsidiary of John Hancock Mutual Life Insurance Company, seeks to reduce costs by monitoring mothers who risk difficult pregnancies. "If you work with mothers and the doctors, it is possible to improve the outcomes," said Lawrence Goelman, president of Cost Care.

As part of their benefits packages, pregnant women in the program are required to call a Cost Care nurse. The nurse reviews the mother's family history and life-style to determine if there is a high risk of a problem pregnancy. In risky situations, case managers work to ensure that everything possible is done to assist in the birth. Mothers may be told to relax in bed and avoid alcohol. If the mother suffers from hypertension or diabetes, she will be provided with special treatment. Nurses suggest proper diets.

EMPLOYEE BENEFITS

CHALLENGES IN PROVIDING MENTAL HEALTH SERVICES

For many companies cost containment efforts have met with little success in the areas of mental health and substance abuse. In the past decade, the cost of mental health care has risen faster than other medical expenses. Treatment for mental health and substance abuse problems now accounts for about 10% of all health benefit costs, up from 5% a decade ago. Last year, costs for companies with more than 5000 employees rose 47%, according to a survey by A. Foster Higgins & Co., a consultant.

Many employers find that a significant percentage of their biggest claims comes from mental health treatment. In a study of the Houston market, the Employee Benefit Research Institute found that while mental health cases only accounted for 4% of the claims submitted, they were responsible for 15% of hospital costs. The average cost for a mental health hospitalization was $18,454, compared to $6,789 for other hospital cases.

The high costs come from a range of factors. To begin with, many professionals

Companies have been trying a variety of managed care approaches

believe that intensive hospital t ment is necessary to handle me health problems such as se depression. Since hospital care cost $600 a day, the bill for stays can quickly mount to $100 or more.

Costs have been particul steep for teenagers. In a study, A Life Insurance Company found people under 18 accounted 42% of all in-patient mental he costs, even though young pati only accounted for 25% of mental health admissions. C fronting this data, some researc have suggested that teenagers being admitted unnecessarily behavioral problems. Uncertain to handle difficult youngsters, par turn to hospitals.

Hospital expenses have also r sharply as public attitudes h become more accepting of me health and substance abuse proble People are less likely to fear be stigmatized if they step forward treatment.

For employers, managing m tal health care poses particula difficult problems. Professionals o disagree about how to treat mental pr lems. Employers may be unable to precise cost guidelines. "If someone ha gall bladder problem there is a cl consensus on how you treat the proble said Donald L. McKean, sales directo Human Affairs International, a subsidi of Aetna that manages mental hea programs. "There is not a consensus how you treat depression."

Companies have been trying a variet managed care approaches. In the past, s employers offered unstructured progra that paid for unlimited hospital stays lengthy outpatient psychotherapy. Now s generous policies are being curb Employers are applying case managem procedures.

To help employers handle proble Human Affairs International maintains hour phone lines where employees can for help. Phone counselors provide imm ate assistance. Although panicked pare may want to hospitalize a troubled you ster, counselors often find they can stabi a situation by quickly meeting with troub families. In many instances, a half do outpatient psychotherapy sessions can h to relieve problems.

Sometimes counselors prescribe fam therapy, since the child may be acting because of problems the whole family fac "Instead of spending $500 a day

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EMPLOYEE BENEFITS

hospitalization, it may be possible to have the person seen three or four days a week at $50 a visit," said McKean of Human Affairs International.

Though serious cases of drug and alcohol addiction require hospitalization, it is possible to treat less difficult cases with outpatient care. Under typical Human Affairs plans, outpatient treatment is provided free to employees, while there are charges for hospitalization.

When counselors refer a case to a hospital, they select an institution that is part of a PPO network. The counselors meet with the treatment team from the hospital to discuss the diagnosis and review how long the team expects the hospitalization will last. Case managers monitor the treatment to make sure it proceeds effectively.

Managed care companies say that case management can reduce mental health costs. The average cost of mental health benefits was $244 per employee last year. At companies with unmanaged programs, costs can balloon to $1000. Companies with managed care typically don't spend much more than $275 per employee on mental health costs.

COPING WITH THE AIDS CRISIS

Along with mental health problems, AIDS has been another source of sharp inflation. Treating AIDS cost an estimated $3.5 billion last year, and the figure is expected to double in the next two years.

Empire Blue Cross and Blue Shield, which covers New York City where many AIDS cases are concentrated, reported that 2.3% of its total expenditures in 1989 were for AIDS.

Treating an AIDS patient costs $70,000 on average. Some analysts have speculated that the bill could climb in the future. In the past AIDS patients died quickly. Now new treatments and drugs such as AZT are prolonging lives several years.

However, most experts now caution it is difficult to predict future expenses. Efforts at cost cutting are helping to stabilize expenses. Health care providers are becoming more skillful in how they treat the disease.

When AIDS first appeared in the early 1980s, doctors were uncertain what to do and simply kept patients hospitalized. In more recent years, providers have learned that it is possible to use outpatient settings. Home care can cut costs and is welcomed by patients who prefer staying in familiar surroundings. AIDS patients diagnosed in 1984 spent an average of 50.1 days in hospitals, while those diagnosed in 1986 were hospitalized for only 43.1 days, acc to Independence Blue Cro Pennsylvania Blue Shield.

These programs are often called cafeteria plans since they allow employees to select from among a menu of options

FLEXIBLE BENEFITS FOR A DIVERSE WORK FO

Trying to tailor benefits plans the needs of different empl more companies have been turn flexible plans. These programs are called cafeteria plans since they employees to select from among a m options.

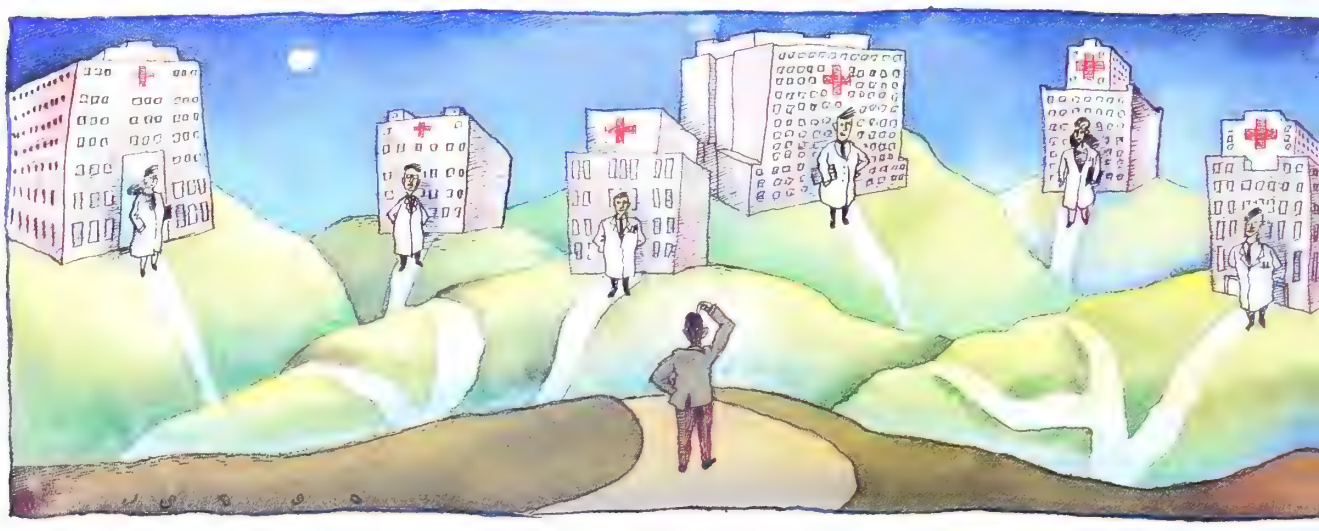
Typical programs offer several di health and life insurance plans. Emp can select more or less health coverag employee whose spouse works may el tle health care in order to avoid dupli of coverage. It may be possible to tak health insurance in exchange for more tion days or for child care assistance.

According to a survey by Willia Mercer Inc., a consultant, 47% of the largest employers offer or plan to offer ble plans. This is more than doubl figure of five years ago.

Employers have found that along serving as recruiting tools the plans s times help to cut costs. A survey by b consultant Hewitt Associates in 1988 that health costs rose 14.9% for comp with flexible plans, while costs rose 22 employees with conventional plans.

Part of the reason that flex plans reduce costs is that they offer many aged care options, which help to cut cos addition, some employers introduce fle plans as part of a program to shift health costs onto employees.

Consultants warn that not all fle plans do cut costs. The plans can be ex sive to implement. Companies must in complicated record keeping procedur



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EMPLOYEE BENEFITS

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At some flexible benefit plans, an increasingly popular option is long-term care. These policies provide coverage for elderly people who can no longer care for themselves and require unskilled nursing assistance. Most people do not yet have such coverage. Typical health insurance policies cover hospitalization and skilled medical care. But there is no protection for those who may be disabled because of a chronic disease or simple old age.

Many elderly people face the nightmare of being impoverished by nursing home bills. Federal Medicaid programs assist poor people. But middle class retirees are not eligible for coverage until they exhaust most of their assets.

Insurance companies have been rushing to fill the gap. As recently as five years ago only a dozen insurers offered some kind of long-term care. Now more than a hundred companies have entered the field. New varieties of insurance are being developed. In the past year, some insurers have begun selling comprehensive packages that cover more than just nursing home care.

UNUM Life Insurance Company of America offers policies that provide flat monthly payments regardless of where the care is provided. The money can be used to reimburse family members who may be staying home to care for an elderly relative. The coverage is particularly valuable, since most long-term care is delivered informally by family members. "The policy allows people to decide for themselves how best to meet their long-term care needs," said Kevin McCarthy, vice president of UNUM.

The payments begin when the participant can no longer perform two of what the insurer calls activities of daily living, including eating, bathing and dressing. A doctor must certify that the patient meets the requirements. But there is no need to provide vouchers for expenses.

New policies allow employees to protect their entire families. Employees can buy policies that cover themselves, their spouses, parents, and grandparents. This policy is particularly attractive for younger people who may be forced to take time away from work to care for a relative.

CARING FOR CHILDREN AND THE ELDERLY

Along with long-term coverage, flexible plans have been offering more employees help in caring for children and older dependents. With so many women in the labor force, companies have begun to believe it is necessary to assist employees in the difficult task of balancing work and family responsibilities. For some time employers have recognized that child care problems can make employees miss work or quit jobs altogether. Now more companies are recognizing that employees also have responsibilities for elderly relatives.

Benefits consultants say that many employees skip work in order to care for elderly relatives. Employees who live hundreds of miles away from parents may be forced to take unscheduled vacations in order to care for an elderly person who suddenly faces an emergency.

Surveying its 37,000 employers, Travelers Corporation found that 25% had children under age 13, while 2% provide some care for elderly relatives. Many employees must provide care to both children and elderly people. To provide assistance, Travelers offers a flexible package that includes subsidies for child and elder care as well as assistance in finding care. "The program helps attract and retain employees," said Christine Thonis Melly, flexible benefits administrator.

New policies allow employees to protect their entire families

Under the program employees can set aside up to $5000 of their pay on a pre-tax basis. The money which is not restricted to childcare, goes into a spending account that can be used for dependent care expenses. As an option in the cafeteria plan, employees can elect to have the company contribute up to 30% of the cost.

Most people using the plan set aside money for child care expenses such as day care bills. But some use the money for adult daycare centers where they can leave elderly relatives who are unable to care for themselves during the day. It is also possible to use the money to pay for the costs of caring for an adult at home.

A NEW GENERATION OF WELLNESS PROGRAMS

Companies have long offered fitness programs for executives. Searching for ways to control health costs, they have begun expanding health-oriented programs. Now some employers are offering a new generation of comprehensive wellness programs that offer programs in areas such weight reduction, smoking cessation and stress management.

Some companies have invested heavily in the programs, building expensive fitness centers and hiring staff to oversee programs. Whether the programs actually pay off in dollars and cents is not yet clear. Most of the programs are new, and there is not yet a large body of data on their successes. Some employers have worried that the costs may not be justified, since the programs may only reach employees who are already fit.

Still, there are some indications that intensive programs can cut costs. In a 1991 study, Coors Brewing Co. found that health insurance costs were 13% less for participants in wellness programs than for people who did not participate. In a five-year study Johnson & Johnson found participants in the wellness programs were absent from work less and had lower hospital costs.

Whether or not they can demonstrate that the programs cut costs, companies report that wellness programs are popular benefits that are appreciated by employees. "After you start the program, you can watch morale go up, and you can see people

SCIENCE IS MAKING SURE WE LIVE LONGER. WHO'S GOING TO MAKE SURE WE CAN AFFORD TO?

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EMPLOYEE BENEFITS

change their health habits," said Susan Olson, manager of employee health programs for UNUM.

UNUM managers believe their program will produce long-term benefits. Many participants have lost weight and lowered cholesterol levels. Such results seem bound to help reduce heart attacks and other diseases in the future.

MORE OPTIONS FOR 401(K) SAVERS

In recent years 401(k)s have become an increasingly important element of benefits packages. The retirement savings plans have been enjoying a surge of growth. More than 90% of large employers offer the plans, and small companies are beginning to sponsor the programs.

The plans allow employees to put aside a portion of their wages on a tax-deferred basis. Many employers match the employees' contributions. Employees have some ability to choose where their money will be invested.

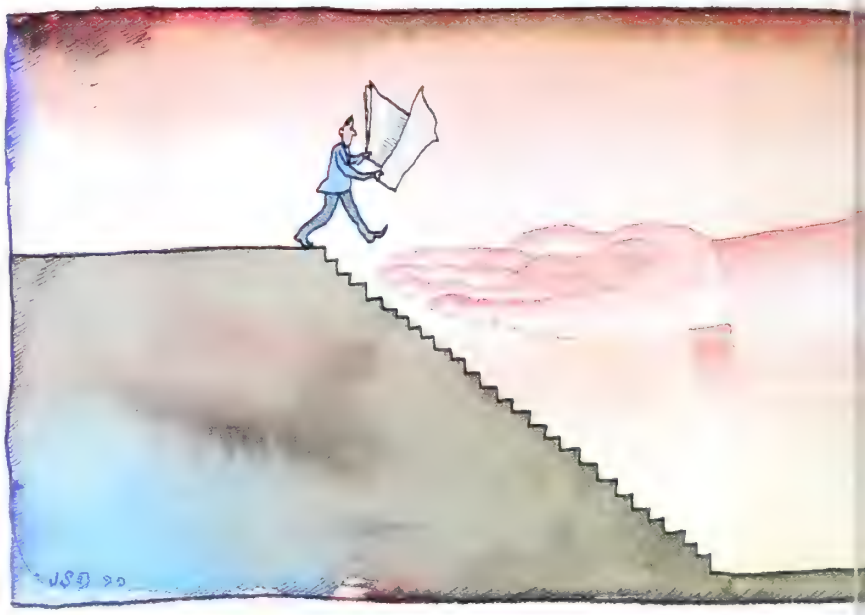
In the past, many plans only offered one or two investment options. Typical plans permitted employees to invest in their company's stock and perhaps a safe fund such as a guaranteed investment contract which provides a fixed rate of return.

In recent years, the Department of Labor has been encouraging companies to offer more investment options. The government has proposed regulations that would require employers to offer a variety of choices. While the final regulations have not been released, the department has said that it will probably require at least three or four options.

Anticipating the new rules, many companies have begun offering a range of investments such as equity and money market funds. "Employees want control over how their retirement money will be invested," said Donna Winn, vice president of business and financial services at Merrill Lynch Consumer Markets. "They want to make investments that suit their own situtations."

Some investment analysts worry that employees have not been properly diversifying their holdings. Employees have put about 70% of their 401(k) assets in guaranteed investment contracts. The GICs are considered safe investments, but some analysts argue that employees should put more money into equities. Over the years, stocks have produced higher returns, even though they may involve more risk. "People need to put some money into equities so that they will have enough for comfortable retirements," said Jeffrey M. Miller, director of 401(k) services for Shearson Lehman Hutton Trust Co.

Miller said that many employees have been frightened by volatile moves in the stock market. While people nearing retirement age may not want to take a chance on the markets, he said younger people must be educated that over the long term stocks are reliable investments.



Fidelity Investments, the giant mutual fund company, manages 401(k) accounts for 500 companies. Fidelity believes it has encouraged most of its customers to be properly diversified. In typical accounts, employees put 60% of their a into equities and 40% into G "That's the level where you w to be for most people," said R L. Reynolds, president of Fi Institutional Retirement Service

Fidelity has encour investors to diversify by offer range of investments and prov reliable service. The average employ Fidelity programs now offers five in ment options, up from a figure of 2 1/2 years ago.

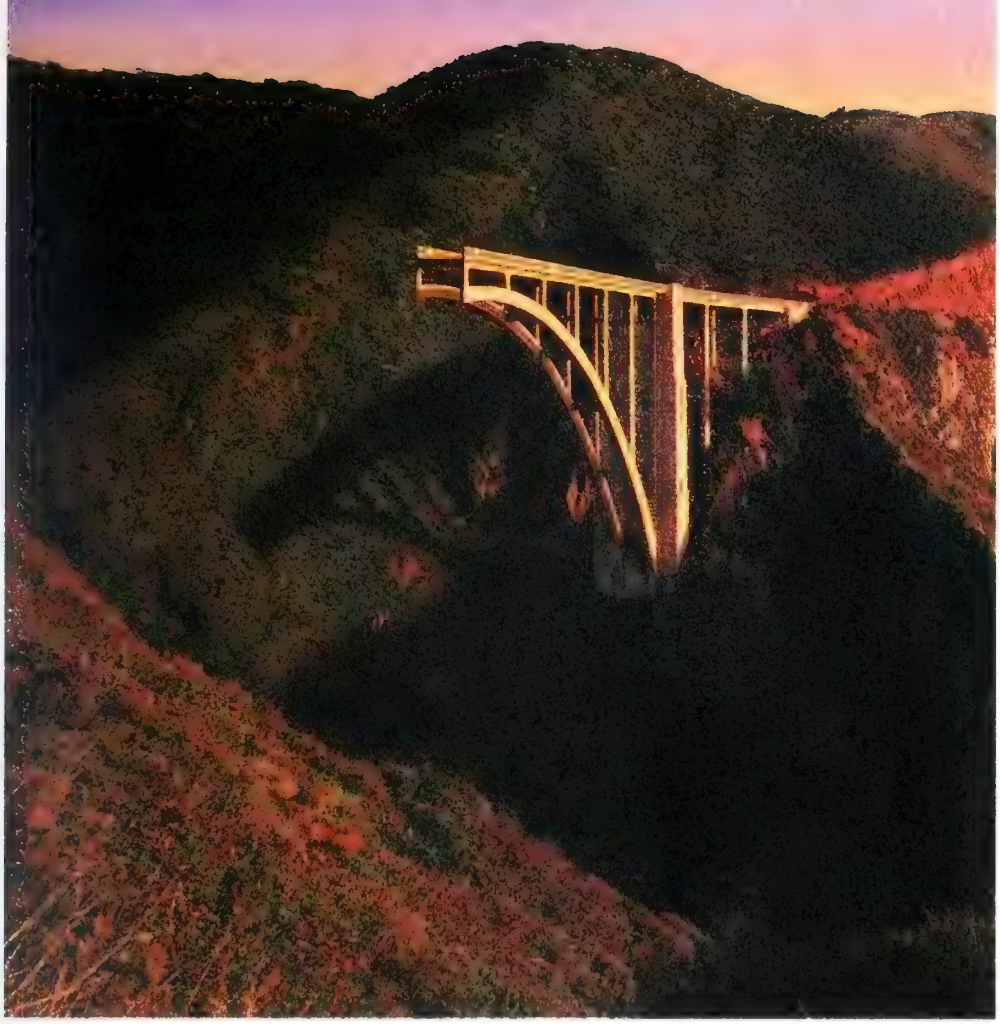
Participants in the plans can e monitor their investments by ca toll-free numbers. Asset values are t every day, so participants can tell ex how much money they have in accounts. Many companies permit emp ees to switch money several times quarter. "People feel comfortable equity investments because they have s control over the account," said Ro Reynolds of Fidelity.

Employees like 401(k) plans bec they can be shaped to fit an individ needs. Participants can borrow from plans for major expenses. When emplo leave companies they can take the m with them.

Consultants believe that in the fu 401(k)s and other benefits will become more flexible. As the work force char employers will have to continue finding tomized solutions that suit the need employees. ■

In recent years, the Department of Labor has been encouraging companies to offer more investment options

This special section was written Stan Luxenberg, freelance finan writer and columnist.



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MBER 5, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

IE FED'S WORST FEARS OULD BE JUST AROUND THE CORNER

he best-laid plans of the Federal Reserve Board often go astray. That's what has happened to the Fed's efforts to bring the U. S. economy in for a anding. Tight money was supposed to slow economowth to a subpar pace of 1% to 2%, easing inflationressures but ensuring continued expansion. Now, gh, inflation still shows no sign of backing down. the economy seems headed into recession.

o things can kill a soft landing: The Fed can keep tary policy too tight for too long, or the expansion et hit with an unexpected blow outside the central s influence. This time, we got both barrels. By the d quarter, previous Fed tightening had slowed the my to a crawl, raising the risk of recession in the d half. Then, Saddam Hussein's invasion of Kuwait gust virtually guaranteed a downturn.

w, the Fed faces even more frustrations. The dollar allen to a postwar low. Banks are in trouble. High age is fraying the economy's financial fabric. And ington's protracted squabbling over how to cut the t has prevented the Fed from cutting interest rates effort to shore up a sagging economy.

VER DERS, RE OFFS

At first glance, the government's report on third-quarter gross national product—due out on Oct. 30—may look anything but weak. People might even ask: What sion? Despite expected declines in foreign trade and ebuilding, as signaled by the latest monthly data, th in real GNP last quarter could come in much ger than the measly 0.8% gain widely projected. the number itself will be skewed.

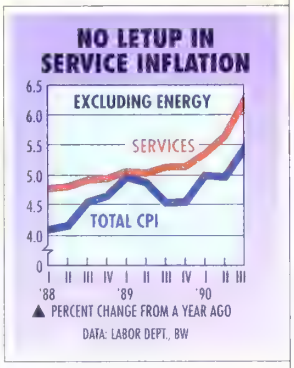
First, a faster pace of inventory growth boosted last quarter's GNP considerably, but stock levels rose mainly because businesses couldn't move goods out the door, the result of broad weakness in demand. So inventories will have to be pared this quarter, which means fewer orders, more production cuts, and more layoffs.

There's already some evie of that. New factory orders for durable goods ped 1.7% in September, the third decline in the past months. And first-time filings for state unemployt benefits shot up in late September and early Octochart). The four-week average has jumped to nearly 00 per week. That's the highest level since 1985, when the jobless rate was hovering around 7%—and it's typical of past prerecession readings.

The other trick in third-quarter GNP will be consumer spending. Measured outlays were strong last quarter, but the reason is arithmetic, not shop-happy consumers. Buying at the end of the second quarter was unusually strong, which started the third-quarter numbers at a high level. So even though spending weakened from July to September, the third-quarter average ended up well above the second quarter.

All of this is setting up the economy for a fall in the fourth quarter. Consumer spending limped into the current quarter. That, combined with the exaggerated level of outlays last quarter, will produce a big drain on GNP. Add in the slowdown in inventory growth and further declines in construction and capital spending, and the fourth quarter seems headed into negative territory.

With hopes of a soft landing all but gone, the Fed's job now is damage control. It will have to try to keep the recession as mild as possible, while dealing with all of the economy's other problems—not the least of which is stubborn inflation. In the past, it has always taken a recession to cut inflation, and that will probably be the case this time as well.



Soaring energy prices pushed up the consumer price index in September by 0.8%, matching the big August jump. But even excluding energy, the trend of inflation is still up. During the third quarter, nonenergy prices rose 5.4% from a year ago, nearly a percentage point faster than the pace in the third quarter of 1989.

So far, the Fed's only success in reducing inflation has been in goods prices. There should be more evidence of that during the holidays. With consumer demand so weak, analysts expect heavy discounting by retailers.

The problem is services (chart). Excluding energy, service inflation has accelerated to 6.2%, from 5.1% a year ago. As the recession spreads, even gains in service prices will slow, but that will take some time.

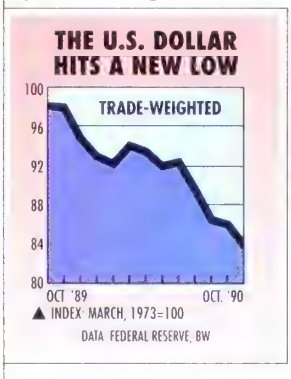
OIL PRICES TAKE A TOLL

In addition to inflation and recession, the latest complication for Fed policy is the dramatic weakening in the U. S. dollar. Even before the Persian Gulf crisis, the dollar was being hammered by stubborn inflation at home plus rising interest rates abroad. Now, with the

uncertainty of the Middle East crisis, the dollar has plunged against the currencies of stronger economies such as those of Germany and Japan.

The dollar's exchange rate is at a record low (chart). That places U. S. importers in a dilemma. The weaker dollar will cut their profit margins, but if they raise prices, they could lose market share in an already slowing economy.

For U. S. exporters, however, the cheaper dollar is good news. Although the weaker currency will take about a year to have an impact on the flow of exports, the enhanced competitiveness of U. S. goods abroad will give manufacturers needed outlets now that Americans seem less inclined to shop. But weak domestic demand will slow the growth of imports. That, plus continued gains in exports, will help shrink the trade deficit.



That will reverse the widening that occurred in the third quarter. After falling to a seven-year low in June, the merchandise trade deficit rose sharply, to $9.1 billion in July, then edged up again to $9.3 billion in August. Even after adjusting for price changes, the trade gap so far in the third quarter is about one-fourth larger than it was in the second.

The wider deficit stems from deterioration on both sides of the trade account. In August, exports increased 1.6%, to $32.6 billion, but that didn't make up for their 6.1% slide in July. Imports, meanwhile, grew 1.8% in August on top of a 4.3% gain in July. That pushed imports to a record high of $42 billion.

The increase in oil prices caused all of the import rise in August. The volume of oil coming into the U. S. actually fell to 7.9 million barrels per day, compared with 8.9 million in July and 8.7 million in last August.

Supply problems caused by Iraq's invasion of Kuwa along with worries about war in the Middle East, help to push up crude-oil prices. But now, global oil produ tion seems to have rebounded to where it was before t invasion. That has helped to ease oil-price pressure Moreover, the jump in gasoline prices has probab caused American consumers to cut back energy use. S oil imports should drop in coming months.

A BIGGER TAX BITE WILL STING

The dollar's free-fall certainly creat problems for policymakers in Washin ton. In coming months, the Fed will ha to cut interest rates to support the eco my. But unless that move is matched by central banke in Europe and Japan, the dollar will fall still more.

The Treasury Dept. may find it more difficult to s U. S. bonds. Already, foreigners have become net selle of U. S. securities. The recession could push up Washin ton's borrowing needs to more than $300 billion in 199 At the same time, slowing income growth for consume and businesses will mean fewer investment funds fr domestic sources. One upshot could be interest rat higher than they would normally be during a recessio

The budget dithering by the Administration and Co gress only complicates the outlook. Neither party seer interested in addressing the root of Washington's swar of red ink: spending. In fiscal 1990, federal outlays gr by some 13%, on top of a 7.5% jump in 1989.

Demand for state and local services has also rise Growth in local public spending should increase furth as the economy weakens because many social servic are handled at the state level. That means consume and businesses will face bigger tax bills—whether fr Uncle Sam or their local tax assessor.

Trying to offset this drain will make the Fed's ju gling act more difficult. Pumping up the economy wh inflation is still high may not have been part of the Fe best-laid plans, but it is fast becoming the only optio

THE WEEK AHEAD

GROSS NATIONAL PRODUCT

Tuesday, Oct. 30, 8:30 a.m.
A survey of economists by McGraw-Hill Inc.'s MMS International shows that inflation-adjusted GNP probably grew at a 0.8% annual rate in the third quarter, the same weak pace as in the second. Growth may be stronger because of gains in consumer spending and inventories. Last quarter's fixed-weight price deflator likely rose at a 4.9% annual rate, up from 4% in the second quarter.

NEW SINGLE-FAMILY HOME SALES

Tuesday, Oct. 30, 10 a.m.
New homes probably sold at an annual rate of 542,000 in September—some 25% below their year-ago pace. In August, new homes sold at a weak 550,000 rate.

PERSONAL INCOME

Wednesday, Oct. 31, 10 a.m.
The MMS consensus expects that personal income rose by 0.5% in September, after a 0.3% gain in August. Consumer spending likely grew by 0.8% in September. In August, it increased 0.5%.

CONSTRUCTION SPENDING

Thursday, Nov. 1, 10 a.m.
Construction spending likely fell 0.6% in September, after no change in August.

NAPM SURVEY

Thursday, Nov. 1, 10 a.m.
The business activity index compiled by the National Association of Purchasing Management probably fell to 43.8% October. The index dropped 2.6 percentage points, to 44.4%, in September.

EMPLOYMENT

Friday, Nov. 2, 8:30 a.m.
The MMS survey calls for a drop of ab 30,000 nonfarm jobs in October, af 101,000 workers were laid off in Sept ber. Economists also expect Octobe unemployment rate to edge up to 5.8 from 5.7% in September.

LEADING INDICATORS

Friday, Nov. 2, 8:30 a.m.
The government's composite index leading indicators likely fell by ab 0.7% in September, after slumping 1 in August.

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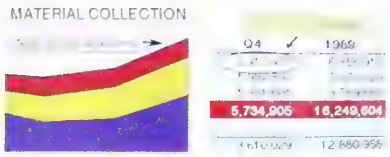

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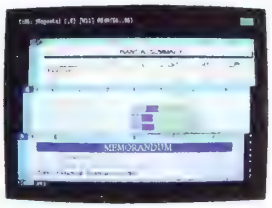

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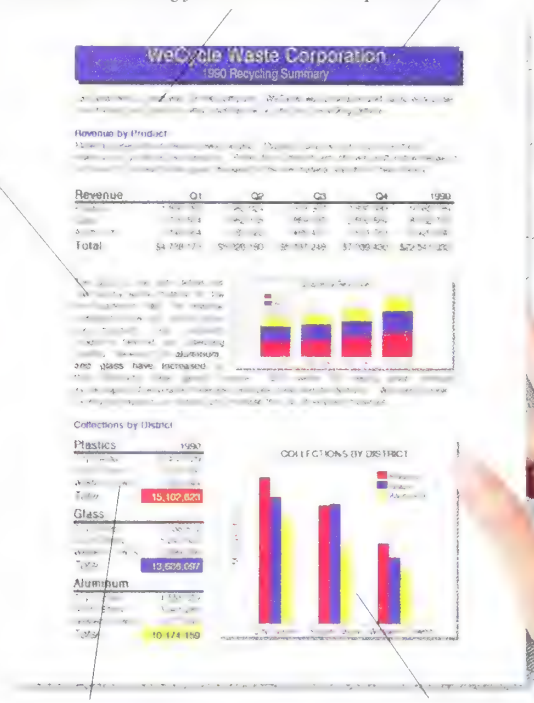

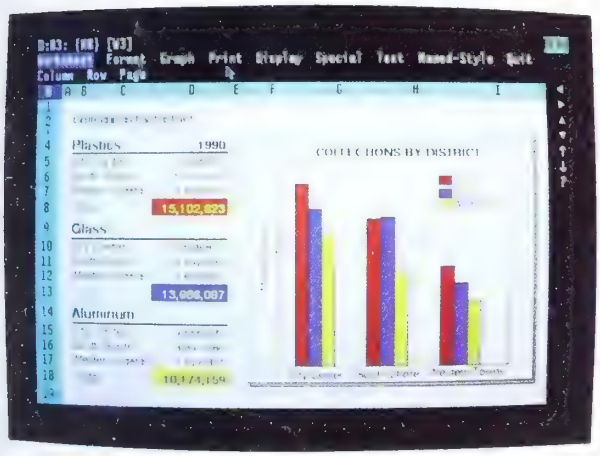

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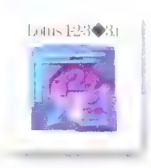

Or if you're one of the holdouts not using 1-2-3, you'll find it offers an interactive, graphical environment. Plus it works with Windows 3.0. And supports both a keyboard and a mouse.

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CLEARED FOR TAKEOFF

UNITED CUTS A DEAL WITH PAN AM—AND LAYS A GUTSY BET ON GLOBAL GROWTH

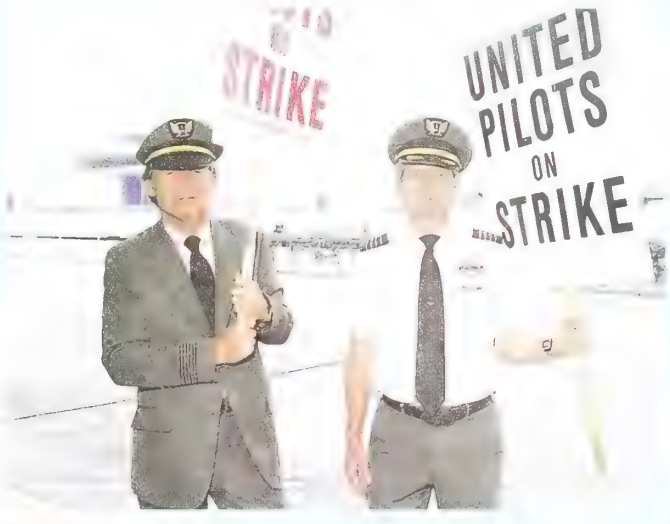
Who would've believed it? Less than a month ago, UAL Chairman Stephen M. Wolf was on the ropes. His fractious unions appeared close to taking away the company in a $4.4 billion buyout. His growth plans were held hostage to the buyout effort. UAL Corp.'s biggest shareholder, Coniston Partners, was clamoring for a deal to revive its battered stake. And the unions were within a whisker of winning their long-running battle with Wolf by replacing him with CEO-in-waiting Gerald Greenwald. Competitors had a single hope: that the parent of United Airlines Inc. would take on lots of debt, clipping its competitive wings for years to come.

Nope, no way. To the surprise of nearly every Wall Street and airline pundit around, UAL—and Wolf—are suddenly flying high. The ownership questions appear resolved. UAL's balance sheet is healthy, bolstered by a fat $1.5 billion cash hoard. And, for the first time in years, UAL management seems squarely behind a coherent—if risky—growth strategy that has already swung the balance of global aviation in UAL's favor.

That Wolf is at the controls of UAL sudden turnabout is all the more remarkable. UAL's unions had hoped throw the lanky chairman out. B thanks to bankers' jitters about buyou and the soaring price of jet fuel sin Iraq's invasion of Kuwait, the employ bid for UAL went down in flames on O 9. When the smoke cleared, Wolf w firmly ensconced.

He has been flying at Mach 1 ev since. Wolf has done in weeks what takes most CEOs years to accomplish. Oct. 15, the carrier agreed to purcha

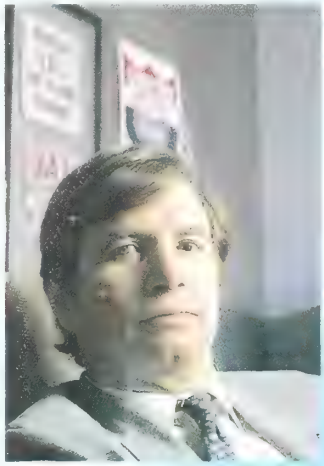
UAL'S LONG FLIGHT THROUGH UNFRIENDLY SKIES



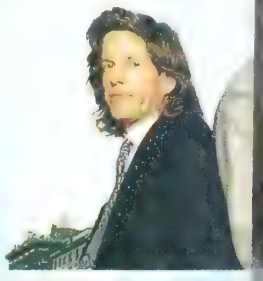
MAY, 1985 Pilots stage bitter 29-day strike that disrupts labor harmony for years to come. Unions later begin meeting with investment bankers to devise employee buyout plan

AUGUST, 1985 UAL buys Hertz for $587 million

FEBRUARY, 1987 CEO Richard J. Ferris renames company Allegis, unveiling a strategy to sell everything from air travel (United) to rental cars (Hertz) to hotels (Westin), with the reservations system that ties them all together (Covia/Apollo)



APRIL, 1987 Pilots, led by Rick Dubinsky, put UAL into play with proposed $2.5 billion offer



MAY, 1987 Boeing makes friendly investment of $70 lion in UAL. But Coniston ners buys 13% stake and nounces a move to break company. Ferris announce billion special dividend

JUNE, 1987 Ferris is oust terim Chairman Frank Ols launches restructuring tha mately includes the sale o Hilton International, West half of Covia, plus a $2.84 recapitalization and buyba UAL shares

DECEMBER, 1987 Stephe is lured to UAL's top job, $6 million employment pa angers unions

illion in Boeing Co. widebody jets—rgest aircraft order in history. The day, it beat out American Airlines n a heated battle for new authority between Chicago and Tokyo—a vorth an additional $300 million in ues a year. Three days later, Wolf ed a truce with Coniston that gives artners two board seats but effec- ends the threat of a buyout for reseeable future.

R UNCERTAINTIES. And then, on 3, Wolf set the industry on its ear. greed to a $400 million purchase of American Corp.'s routes to and London's popular Heathrow Air- including service to 12 cities on sides of the Atlantic. The Pan Am s allow Wolf to blunt American's ternational push. And it pulls Unit- t of the strategic limbo where it ished during much of the takeover . Instead of a lumbering giant ab- d by ownership squabbles or sad- by buyout debt, United is quickly ging as a fast-growing, globe-gir- airline capable of flying passen- from Bangkok to Boston to Berlin. an amazed former UAL executive had all but given Wolf up for dead: "In only a week, the momentum has switched toward Wolf."

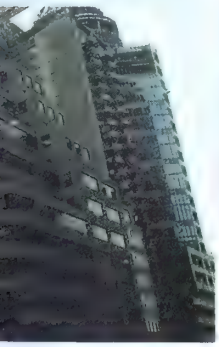
To be sure, major uncertainties remain. The biggest and most pressing are United's open labor contracts with all three of its unions. Salaries and related costs are an airline's largest single variable expense, accounting for 33% of United's operating costs last year. So buying $22 billion worth of new widebodies and embarking on a dramatic overseas expansion when Wolf still hasn't nailed down his future labor costs is a particularly risky move.

Moreover, the business outlook for airlines is clouded by both the long-simmering prospect of a U. S. recession and the recent doubling of the price of jet fuel. Analyst Michael W. Derchin of County NatWest Securities USA estimates that every 1¢ increase in the price of jet fuel equals more than $21 million in additional expense for UAL. Since the Kuwait invasion, "that's about $840 million in added costs for United—which could get worse if prices go up further," he notes.

Those pressures are already taking their toll on the industry. In recent weeks, USAir Group Inc. announced service cuts and postponed delivery of some new aircraft, while Northwest Airlines Inc. Chairman Alfred Checchi is seeking temporary 10% wage rollbacks from his employees in exchange for a promise of no layoffs for six months. And on Oct. 19, cash-strapped Midway Airlines Inc. agreed to sell its year-old, money-losing Philadelphia hub to USAir at a $33 million loss. Woes at Continental Airlines Inc. led to the departure on Oct. 23 of several top managers, and word had it the board had considered a Chapter 11 filing. "If this situation lasts a year, it's going to get very ugly for the industry," says Midway Chairman David R. Hinson.

Wolf has little choice but to expand United fast. He believes that growth can bring both labor peace and market-share and profit gains to his long-suffering stockholders, who have seen their shares nose-dive 43% this year. "Wolf's whole strategy is growth because it's the one thing that keeps everybody happy," says a former executive. "But it remains to be seen if he can do it without having his major costs in line."

Wolf appears to be gambling that his unions will be so enthusiastic about United's growth prospects that they will



OCTOBER, 1989 Their bid collapses for lack of financing. UAL's stock plummets, taking the stock market with it

OCT. 9, 1990 Unions fail to get financing. The board rejects an offer with far less cash

OCT. 15, 1990 Wolf places $22 billion order for up to 128 new Boeing jets. Government awards United rights to lucrative new Toyko routes after heated contest with American Airlines

989 Marvin Davis of- a share for UAL

NOVEMBER, 1989 Coniston threatens board with ouster

APRIL, 1990 UAL board agrees to a $201-a-share bid from all three unions

R, 1989 United board 300-a-share, $6.8 billion lots and management

MAY, 1990 Unions hire Chrysler's Gerald Greenwald to head buyout group

OCT. 23, 1990 Wolf signs agreement to buy Pan Am's European routes for $400 million

DATA BW

put aside their bitter feuds with him. He might be right. Growth translates into more job and promotion opportunities, higher seniority, and more job security for airline workers. The plane orders are "what is absolutely right for United Airlines, and I think the employees will realize that," argues Executive Vice-President John C. Pope.

That's a particularly potent lure for United's pilots, who stand to move much faster into captains' jobs—which pay up to six times the beginning-pilot wages of $25,000 a year—if the carrier's fleet is growing. Already, Wolf seems to be openly wooing the pilots—whose union was most opposed to his remaining at the helm and is the one union that can quickly shut down an airline with a strike. On Oct. 9, he announced expedited negotiations on a new pilot contract and requested the help of federal mediators in reaching a swift agreement. Wolf also offered to submit the pilot-contract dispute to binding arbitration—an unusual move in airline bargaining. "The company wants to move quickly, and this is a major step," says Senior Vice-President Lawrence M. Nagin. "What could be more fair and equitable?"

But United's three unions, which ended years of bickering last winter to mount the joint employee buyout, are skeptical of Wolf's motives. Since the effort fizzled earlier this month, the unions have agreed to share information about their separate bargaining and to support the machinists' attempt to organize 27,000 nonunion employees. Now, union leaders are worried that Wolf may be attempting to drive a wedge in their new coalition by negotiating a sweetheart contract with the pilots. "Wolf wants to split the unions so they will be at each other's throats," says F. C. "Rick" Dubinsky, the leader of United's pilot group. "But it won't happen."

RETROACTIVE. Wolf says "there is no hidden agenda" in his overtures to the pilots, but a former UAL insider says that a strategy of easy negotiations with pilots followed by a harder line with machinists was recently discussed by some of United's senior management.

A few union leaders concede that labor solidarity could crumble in the face of such a game plan. But they figure that Wolf could only buy off his pilots if he offered them a contract at least as rich as the one recently won at Delta Air Lines Inc. Similar hikes at United would raise its current $818 million pilot payroll by nearly 30%, according to estimates by industry experts (charts). "If this is the world's best airline, it will have the world's best pay," says Dubinsky.

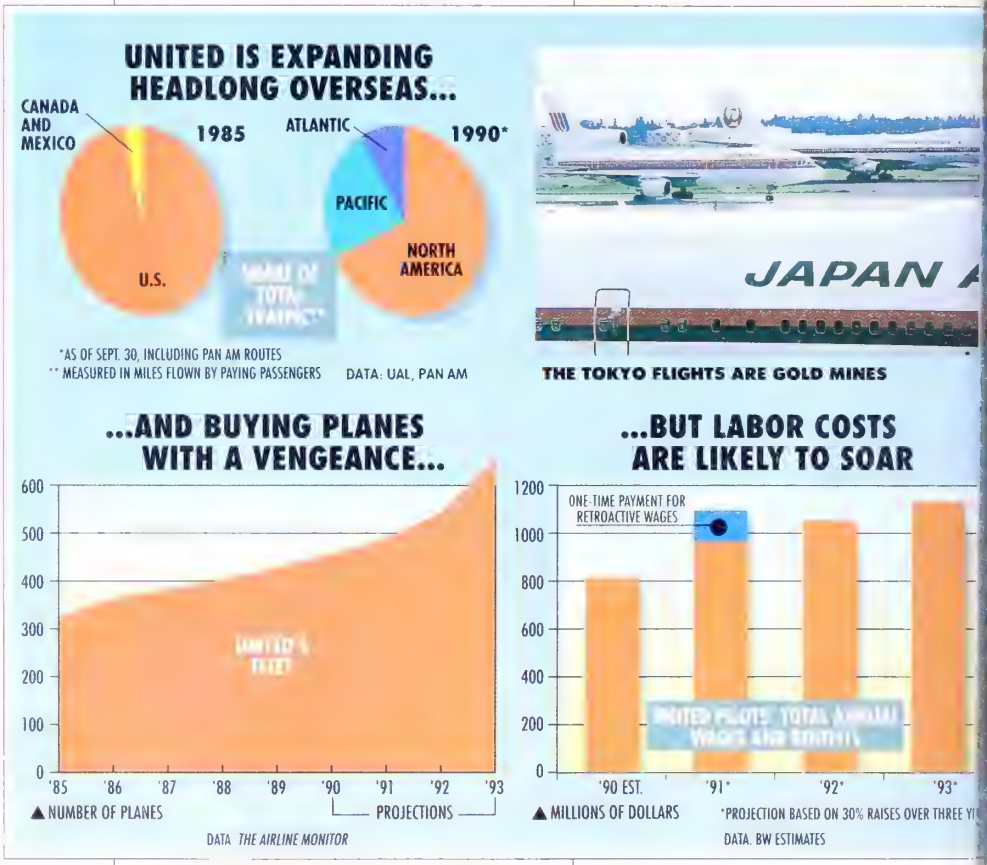
That could hurt. One reason for United's strong results in the past year has been United's unions' willingness to work under their old labor contracts while there was a chance for an employee buyout. Now, all three are pushing for retroactive wage hikes, which could hit more than $100 million for the pilots alone. That could squeeze United's margins just as the economy is weakening—bad news for a carrier that already has higher personnel costs per mile flown than archrival American.

Wolf hopes to lessen that impact by trading higher wages for productivity gains—a controversial pitch among the unions. "We will, to the best of our ability, try to improve our productivity wherever we can to offset unit wage increases," he says. But winning major work-rule changes at highly charged UAL will be an uphill battle, especially for the widely disliked CEO.

Ironically, Wolf was recruited to UAL almost three years ago partly because of his good labor relations as the top executive at both Republic Airlines Inc. and Flying Tiger International Inc., where he convinced workers that severe b tightening was the only way to survi

He got a far different reception healthier UAL, which for the past th years has been rocked by issues of c trol rather than financial viabili Wolf's standing with employees seen to warm after investor Marvin Davis fered $5.2 billion for UAL in Augu 1989. Wolf and other managers for an uneasy alliance with the pilots' un to launch their own $6.8 billion ESOP

Since the collapse of that deal months ago for lack of financing, Wo relations with the leadership of the lots' union have been miserable. And machinists and flight attendants are



bad news for a carrier that already has higher personnel costs per mile flown than archrival American.

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Ironically, Wolf was recruited to UAL almost three years ago partly because of his good labor relations as the top executive at both Republic Airlines Inc. and Flying Tiger International Inc., where smarting over provisions in the orig deal that would have allowed Wolf other managers to pocket more $100 million. Recalls a senior UAL cial: "They thought, 'That's way much for anybody.' "

But Wolf will find it hardest to o come the unions' belief that he is p to blame for the failure of the recen employee deal (BW—Oct. 22). Altho Wolf was obligated to help ease the ployee buyout approved by UAL direc earlier this year, union advisers gr that he and other senior UAL mana dragged their feet on providing fina and operational data to the bu group. Concedes a former UAL in who was close to the situation: "It

of a delaying action where we turn over the financial informa- ntil the last minute." Nagin says harges are "absolutely untrue and pported by fact."

east Wolf doesn't have to worry winning over Coniston, whose stake makes it UAL's largest older. Within 10 days of the em- deal's collapse, Coniston had a standstill agreement that for- from either disposing of its stake g block for more than two years eeding a 15% stake. Says Paul y, one of two Coniston officials to join the UAL board: "Our goal is yield shareholder value. We'll just ng that now from the inside."

ROUTES. Value is exactly what nopes to get from the Pan Am purchase. And airline watchers be- nat, based on recent international sales, the $400 million that Wolf is cash-short Pan Am is a good o triple the minimal European ser- nited currently offers to Frank- d Paris. "This gives them the one AL needs to become a truly trans- c airline," says David Treitel, ex- e vice-president of airline consul- mat, Helliesen & Eichner.

, all Wolf has to do is win regula- pproval to actually take possession Heathrow routes. That won't be a Traffic to Heathrow, Europe's t airport, is tightly controlled, with regulators routinely assigning arriers to less-popular Gatwick t. And rival American, which has ggressively expanding its transat- schedule, will complain that too market power is already in the of United—which earlier this year ed its crown as the noncommunist s largest airline. "When you add o United's already very powerful n in the Pacific, you raise serious questions about the competitive e in the industry," says an Ameri- okesman. Adds a former Ameri- xecutive: "I can guarantee you e sitting there today trying to fig- ut how to scuttle that deal."

ne Pan Am purchase goes forward, will still have more than enough eft over to buy other routes or space in areas where United is But one property Wolf isn't shop- or is bankrupt Eastern Air Lines big Atlanta hub, which creditors ying to peddle. "Delta will always e dominant carrier in Atlanta, and gically we don't want hubs in cities we are not the largest operation," s. Indeed, given the importance of h to Wolf's grip on UAL, nothing han being the biggest will do.

James E. Ellis in Chicago, with Aar- rnstein, Michael Oneal, and Christo- Power in New York

IS PAN AM STREAMLINING— OR CLIPPING ITS WINGS FOR GOOD?

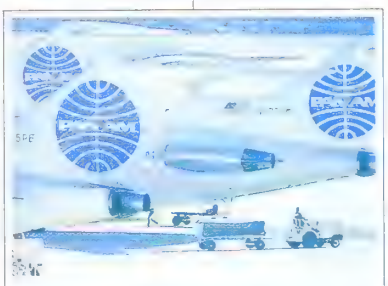
For an industry that has heard reports of Pan Am Corp.'s demise for the better part of a decade, the joke goes like this: Who will be left when the post-deregulation shakeout is finally over? United, American, Delta, and a cash-strapped Pan Am. For better or worse, the nation's oldest international airline seems indestructible. Although it erased its net worth during the 1980s with about $2 billion in total net losses, Pan Am is still flying. Chairman Thomas G. Plaskett is even projecting profits by 1992.

Wall Street isn't listening. On the day after Pan Am sold its prized London routes to United Airlines Inc. for $400 million, its stock still languished below $2 a share, where it had been idling since July. Its bonds? Trading below 30 and headed south.

BETTER OFF. The reason is simple. Even before the Mideast crisis doubled jet-fuel prices, Pan Am was worrying about making it through the winter. It was running as fast as it could to sell its German routes and East Coast shuttle to raise enough cash to stave off a Chapter 11 filing. After selling the German routes to Lufthansa, Pan Am came up with the deal to sell the London routes, which will buy it some time. But many analysts believe the fuel price hike forced Pan Am to sell its best assets on the cheap. Says analyst Phillip Baggaley of Standard & Poor's Corp.: "It's like cutting the heart out of the system."

Plaskett thinks Pan Am will be better off. Because it lacks a viable domestic system to feed the big 747s it flies to and from London, Pan Am wasn't making the most of those routes. The routes earn only 8.9¢ for each mile a passenger is flown, compared with an average of 9.6¢ for Pan Am's entire North Atlantic system.

And while most industry watchers consider London's Heathrow Airport to be the premier gateway to Europe, Plaskett insists that's changing. As Germany unifies and Eastern Europe opens to the West, Central Europe will grow in importance. And with a hub in Frankfurt and an extensive network to Eastern European countries, Plaskett insists Pan Am is well positioned. Pan Am still will have 27 nonstops to Europe and plans to fly smaller, more profitable planes such as the Airbus A310 to serve them. Moreover, a marketing linkup that's part of the United deal will give Pan Am's Latin American routes from Miami a healthy flow of passengers. Insists Plaskett: "We'll get stronger, not weaker."



The airline is gambling that the London hub will be less important

But Pan Am still has enormous hurdles to clear. Though Plaskett will get $150 million from the sale of Pan Am's inter-German routes, the effort to sell the shuttle has slowed to a crawl. A source close to the negotiations says America West Airlines Inc., Northwest Airlines Inc., and a financial backer linked with former shuttle President Bruce R. Nobles are all interested. But Plaskett admits that the industry's doldrums make it tough. "There isn't any money out there to invest in the airline business," he says.

DRAGGING ON. Analysts say Plaskett is merely putting the best face on a bad situation. Even if the strategy of focusing on Central Europe and Latin America makes some sense, losing London and its Heathrow gates makes Pan Am less attractive. "He did it out of sheer necessity," says Robert Joedicke, an advisory director at Shearson Lehman Brothers Inc. Cash is tight, the shuttle isn't sold, and there's no telling how long fuel prices will pare earnings.

Even now, there's no guarantee the United deal won't be dragged out for months by the approval process in Britain and the U. S. British regulators are likely to cast a gimlet eye on the deal because of the challenge United would pose to British Airways. "Everyone is going into this knowing there will be a difficult negotiation," Plaskett says. For now, the much-diminished Pan Am is alive and kicking. But it will take skillful piloting to keep it that way.

By Michael Oneal, with Christopher Power, in New York

TREES DYING FROM THE EFFECTS OF ACID RAIN IN NORTH CAROLINA: THE INDUSTRIAL MIDWEST WILL FOOT THE BIGGEST PART OF THE CLEANUP C

A CLEAN-AIR BILL IS EASY. CLEAN AIR IS HARD

Now, a weakened EPA must try to enforce the law in a flat economy

After 13 years of nasty wrangling, lawmakers agreed on Oct. 22 to a sweeping revision of the nation's clean-air law. From all indications, the years of haggling will turn out to be worthwhile. Early in the next century, when the cleanup is going full tilt, some 100 million Americans will be breathing easier. Cancer and severe respiratory disease could be cut by as much as 10%, according to one congressional estimate. But while the benefits of the law are substantial, so are the costs and hazards of putting it into practice.

The problems are manifold. A beleaguered Environmental Protection Agency, which has issued only seven regulations covering toxic air emissions in 20 years, is supposed to write scores of rules quickly to tell industry how to comply with the law. A sluggish economy isn't spinning out much extra cash to pay for the state-of-the-art pollution controls that businesses will have to buy. And such new regulatory schemes as a market for "pollution credits" are completely untested. "Getting the thing passed is just getting to first base," says Daniel J. Dudek, an Environmental Defense Fund economist.

EVERYBODY PAYS. Viewed simply as a political feat, however, the agreement is a momentous achievement. The measure, which seems headed for easy final passage, finesses a decade of regional squabbling over who will foot the bill to reduce smog and acid rain. The deal sticks the industrial Midwest, whose political clout is waning, with the biggest share of the cost. But just about every business in the country will be affected in some way. "It is the most complex, comprehensive, and far-reaching environmental law any Congress has ever considered," says House Energy & Commerce Committee Chairman John D. Dingell (D-Mich.). Under the measure:

- Thousands of manufacturers will, for the first time, have to curb the toxic substances they spew into the air. Dry cleaners, bakeries, and other small businesses also will have to reduce their harmful emissions.
- Refineries will have to slash cancer-causing fumes from gasoline. And in California, a pilot program will encourage wide-scale testing of alternative fuels such as natural gas and methanol.
- Auto makers will have to cut tailpipe emissions. They'll also have to make vehicles that can run on alternative fuels.
- To stop the destruction of lakes and forests by acid rain, utilities must halve the amount of sulfur dioxide and nitrogen oxides they belch into the air.

It will cost an estimated $25 billion to make the bill's mandates a reality. And the burden of paying that tab will land squarely on business. Companies are already protesting.

Among those moaning the loudest: U. S. auto makers. By the end of the decade, worries Michael J. Schwarz, Ford Motor Co.'s manager of emission-control analysis and planning, "we'll be a nice, environmentally conscious company that's going broke because we can't interest customers in our cars." Schwarz's beef is that U. S. car ma facturers, already trailing the Japan in key engineering areas, need to p money into new-product design and velopment. And now, Detroit will h to divert some of those funds into ting tailpipe emissions.

Executives in other industries worried that the new law saddles EPA with a workload that it can't po bly handle—and that business will harmed as a result. A host of indust won't be able to expand plants or mo processes without EPA-approved s operating permits. If the EPA and s staffs can't handle the paperwork, porate plans could wind up on the heap of bureaucracy. "The ability to tinue our business hinges on action these people," says David W. Grah manager of environmental services Dow Chemical Co.'s Texas operation

'GEARING UP.' The Bush Administrat whose initial push in 1989 for legisla was critical to its ultimate passage, the EPA will be ready. It plans to b the EPA's air-program funding, nov $289 million, by as much as 30%. In past two months, the agency brought on 59 additional staffers for the auto- and fuel-emissions of "We're gearing up as fast as we c says Richard D. Wilson, head of E so-called mobile sources program.

Even if it succeeds, the bill is to cause plenty of pain and disloca An incident on Oct. 22 suggests Americans will have to change thei titudes and habits as much as anyt else. At the congressional session to ratify the clean air agreement, congressman listened intently as colleagues noted that the legisla would protect every American's to enjoy clean air. Then, he fired cigarette.

By Vicky Cahan in Washington, with reau reports

IE BUDGET: A BABY STEP THE RIGHT DIRECTION

rojections are far too optimistic—so the deficit will keep growing

he budget deficit is going to be nearly $400 billion this fiscal year. That's if congressional leaders and President get every dime of their ted $40 billion package of new rev- and spending cuts. And if there is cession. And if no fighting breaks n the Persian Gulf.

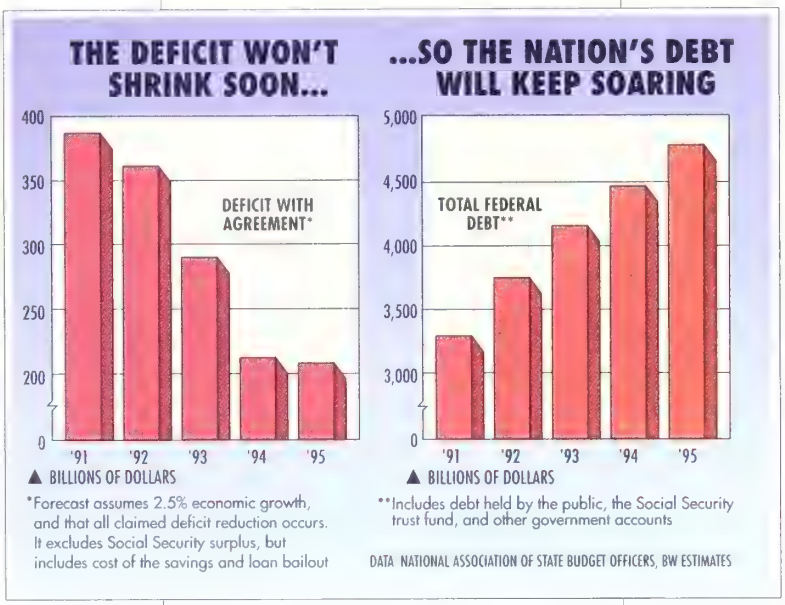
nt to look down the road to fiscal after the full impact of a promised billion deficit-reduction plan kicks The Bush Administration says the t would drop to $63 billion by then. will it really be? ably more like $250 n, about what it was ne fiscal year just l. That's the esti- of the National As- ion of State Budget ers (NASBO). That ction is confirmed hree other private government budget ts who have looked th spending and rev- s for the coming s. "The numbers," NASBO Executive Di- r Gerald H. Miller, frightening."

at's not to dismiss a it-reduction agree- . It would be a pro- us achievement, es- lly in light of nasty cal partisanship and a weakening omy. But a deal won't end the na- deficit woes, not by a long shot. ces are, it would provide only a st downpayment and give the defi- itters no more than a year of re- . "They're taking a step in the right tion," says Harry S. Havens, a se- official at the General Accounting e. "But they'll need to take several steps. This is a very big problem we're facing."

ASTATING.' A clue to what the inside ers really expect is the debt limit—tatutory cap on the amount of mon- ne government is permitted to bor- Although the budget deal promises its totaling about $750 billion ugh 1995, the White House and con- sional leaders quietly tried to in- se the federal debt ceiling by a stun- $1.9 trillion over the same period. hat are the budgeteers trying to ? President Bush and congressional leaders know that the deficits will be much bigger than the official projections, but they can't bring themselves to admit it. "The problem with candor is that this is a painful deficit-reduction plan that is being passed at huge cost," says former Congressional Budget Office Director Rudolph G. Penner. "To tell everyone that the deficit is going to go up anyway is just devastating."

Instead, Congress and the President are overselling the deal. For example, they constantly brag about a five-year, $500 billion deficit-reduction plan. But such an accord has never been on the table. While an agreement would cut planned spending over the next three years, it sets no government priorities after 1993. Those choices would be left to the next President and another Congress.

Then there's the funny bookkeeping. The goal: to cut the deficit by $40 billion this year. But the tally excludes the cost of the Persian Gulf buildup. A shooting war, even a prolonged stay, could eat up vast amounts of the savings.



> The 'deficit cut' of $40 billion this year fails to factor in the cost of the military buildup in the Persian Gulf

But the biggest reason for the hidden deficit can be found in the arcane world of economic assumptions. The budgeteers would reach their targets by relying on a rosy forecast from the Office of Management & Budget. The OMB predicts that the economy will grow by 1.7% in 1991 after adjustment for inflation. That's not out of line with many private forecasts. But after that, cockeyed optimism sets in. The Bush Administration assumes that growth will average nearly 3.8% a year from 1992 to 1995. Yet it sees inflation dropping to 2.8% and short-term interest rates falling to 4.2%. By contrast, DRI/McGraw-Hill forecasts that GNP growth will be more than a full percentage point lower and interest rates will end up more than two points higher. And that means higher spending and lower tax receipts.

REALISTIC. The slower-than-expected economy is already taking a toll on the deficit. The government now plans to spend $100 billion in fiscal 1991—$72 billion more than originally planned—to acquire failed savings and loans. And tax revenues have plummeted far below expectations. "Murphy's Law ran amok," says Penner. "Everything went wrong."

Economic assumptions account for most of the difference between the official deficit estimate and independent projections. NASBO plugged in a more realistic assessment of the current economy, although it did not assume a recession, and it figures growth will average 2.5%, rather than 3.8%, in 1992-95. It also includes the cost of the S&L bailout, but subtracts the Social Security surplus, estimated this year at $73 billion. Other analysts accept these calculations, and that's how you arrive at $400 billion in red ink. The GAO's Havens says that the group's forecast is "in the ballpark." And, says one House Democratic aide, "nobody up here wants to talk about it. But those are the kind of numbers we are looking at."

In the next five years, even assuming a budget deal sticks, the U. S. will spend nearly $1.6 trillion more than it collects in revenues (charts). That means it will have to borrow more in the next five years than it did from 1775 to 1985—and nearly twice what it borrowed from 1775 to 1980. Plenty of grist, in other words, for the pessimists. The best an optimist can do is wonder what it would be like without a budget agreement.

By Howard Gleckman in Washington

Commentary/by Tim Smart

AFTER THE ELECTION, CIVIL RIGHTS MAY GET A FIGHTING CHANCE

Like so much else in Washington these days, the Civil Rights Act of 1990 fell victim to partisan politics. On Oct. 22, President Bush vetoed the measure. By labeling it a "quota bill," he made a pitch to conservative Democrats who might be tempted to vote GOP in November. Meanwhile, congressional Democrats loudly branded Bush a foe of civil rights.

Lost in the political hardball were some key—and much-needed—revisions in employment law that both sides had tentatively embraced after months of hard-fought negotiations (table). "There is significant common ground on every single section of the bill," says Clint Bolick, director of the conservative Landmark Center for Civil Rights. These areas could lay a foundation for a bipartisan bill next year that would reverse a half-dozen 1989 Supreme Court decisions that were clearly against the grain of a quarter-century of improved relations between minority workers and Corporate America.

HARDLY RADICAL. Few would contest, for instance, extending to women and religious minorities the same legal recourse for employer discrimination that blacks now enjoy exclusively. The legislation also would permit for the first time compensatory and punitive damages—not just job reinstatement—for intentional discrimination. At the insistence of industry and the Bush Administration, punitive damages would be limited to $150,000. The idea of a financial disincentive to intentional discrimination in the workplace is hardly a radical notion. Nor would it be revolutionary to adopt a ban on racial harassment on the job—in addition to outlawing it in the hiring process itself.

With those core issues settled, the remaining bone of contention is whether the legislation would force employers to use quotas in hiring. The debate is over provisions that would allow individuals to challenge hiring and promotion practices that result in discrimination even if it's unintentional. In earlier versions, all plaintiffs had to show was that a company's staff wasn't representative of the community at large. But to accommodate business and White House concerns, the measure was changed to require anyone who sued to show that specific company policies, such as degree or test requirements, caused the disparate impact. Then, an employer would have to show why business required the policy.

The changes basically returned employment law to its state before the 1989 high court rulings. Business for the most part had little trouble living with the old law. It's instructive that in the heated debate over the legislation, the nation's largest employers, such as American Telephone & Telegraph Co. and IBM, were noticeably quiet. Women and minorities are an integral part of any labor pool, and most companies already hire in ways that result in employment largely along demographic lines. "Large corporations do hire with an eye to the numbers," says John Tice, vice-president of the pro-business Labor Policy Assn.

Given all that, it's clear that political jockeying, not principle, doomed the legislation. Within the Bush Administration, conservative aides who agreed with the Supreme Court rulings urged a Presidential veto as a way to restore some toughness to Bush's image. Bush had said he wanted to sign a bill, then vetoed it after winning major concessions. Now, Democrats think they have a hot issue, particularly with women.

When the smoke clears in November, the politicians will know who won the bet on civil rights. Perhaps then they can get down to the business of expanding opportunity for all workers.

A NEW AGENDA FOR CIVIL RIGHTS

Civil rights issues that should be addressed in future legislation:

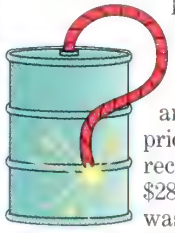
- Extending to women and religious minorities legal remedies now restricted to blacks
- Providing for compensatory and limited punitive damages in intentional discrimination cases
- Allowing individuals to challenge hiring or promotion practices that result in discrimination—even if unintended

DATA BW

THE IRAQ CRISIS

OIL'S WILD RIDE MAY BE SLOWING

The market remains volatile, but the shortfall looks manageable



It was a crazy 12 da even for the futu market. From Oct. to Oct. 22, crude oil an all-time high closi price of $40.42 and saw record one-day drop to n $28 a barrel. The wild r was driven by alternati rumors of conflict and of an immin Iraqi pullout from Kuwait. But oil tr ers bet on peace, and that allowed pri to better reflect basic market conditio "Fundamentals are reasserting the selves because we have had a war p mium in the crude oil price of as mu as $17 or $18," says George F. Fries of Deutsche Bank Group in New Yo

Crude's volatility was mirrored by ports of oil company profits. On Oct. Texaco Inc. posted a 25.5% jump in thi quarter net, while Mobil Corp.'s dropped 31.5%. Texaco, which produ lots of its own oil, gained from lo crude prices. Mobil must buy most of crude and didn't pass along all of higher costs.

DARK VIEW. But it's the next quar that has people on edge. The Paris-ba International Energy Agency now p fourth-quarter oil demand at 54.5 mill barrels a day, down 800,000 barrels fr pre-invasion projections. And Kenn D. Miller of Houston consultants Pur & Gertz Inc. says OPEC output co pass the 22.5 million-barrel-a-day fig widely held as its maximum sustaina level. Taken together, those fact could reduce the winter shortfall force oil prices to the low 20s.

Not everyone is so sanguine. Fre ick P. Leuffer of C. J. Lawrence, M gan Grenfell Inc. notes new crude fr such places as Venezuela is heavier th Iraqi and Kuwaiti oil. More of it is ne ed to produce a given amount of ga line or heating oil—and he says t could boost the fourth-quarter short to 3 million barrels a day. "By the ti we reach late December, the price of will be $40," he says.

That's the dark view. Friesen s that barring war, prices could fall bel $25 a barrel this year. Given the vola ty of the Persian Gulf crisis, consum can only hope he's right.

By Robert Buderi in New Y

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BANKING

WALL STREET TO THE CITI THAT NEVER SLEEPS: WAKE UP

The bank's credibility is so low that it's having trouble raising cash

To say that money is the lifeblood of a bank is belaboring the obvious. And it's rapidly becoming all too obvious that the nation's largest bank is losing its ability to raise money at will. That message was driven home to Citicorp in rapid-fire fashion on Oct. 22 and Oct. 24, when the bank twice had to struggle to raise the money it needed to roll over some crucial securities. All this in a market where interest rates were generally dropping in sympathy with oil prices.

AMONG REED'S OPTIONS: SLASH DIVIDENDS, SELL ASSETS, OR CUT STAFF

In short, the markets were sending Citi Chairman John S. Reed a message: Come up with a clear, convincing plan to bolster the bank against the turmoil wracking the banking system. So far, Citi has been more timid than other banks in its approach. That has made the markets impatient: Citi's stock has declined 66% so far this year. Citi says its problems are no worse than those of other banks, but its stock decline has picked up steam in recent weeks, even as other bank stocks have bottomed out (chart).

STRETCHED THIN. That dichotomy in stock performance speaks volumes about how banks approached their problems in their latest earnings reports. Chase Manhattan Corp., for example, bolstered loan loss reserves, announced widespread layoffs, and trimmed its quarterly dividend by half to conserve capital. By contrast, Citi's common equity-to-capital ratio is one of the weakest among money-center banks. In its third-quarter earnings report on Oct. 16, Citi showed a $780 million rise in commercial nonperforming loans, including $573 million in bad real estate loans. But the bank raised reserves by a paltry $82 million. Citi insists reserves are adequate, but try telling it to Wall Street. "They are stretching their credibility," says Carole Berger, a bank stock analyst at C. J. Lawrence, Morgan Grenfell Inc.

The recent auctions show how thin that credibility is stretched. On Oct. 22, Citi tried to reprice $75 million in money market preferred stock, a hybrid security whose dividend is reset periodically. But Citi had to pay a surprising 9.4%, or 115% of the going rate for high-rated commercial paper—short-term corporate IOUs. That left it uncomfortably close to the 120% maximum it was allowed to pay to buyers. Indeed, the auction might have failed but for the support of dealers who underwrite Citi's $950 million outstanding in auction-rate preferred. William Weiant of First Boston Corp. estimates that in recent repricing auctions, underwriters bought about half of the securities. Says one investment banker: "These types of securities allow people to vote with their feet."

And just two days later, vote they did. For its next auction of $100 million money market preferred, Citi had raise the stated cap on the securitie yield and pay 12.5%, or a stunning 154 of the going rate on commercial pape Citi says the high rates reflected th general market jitters over the conditio of U. S. banks. "What's going on in th market is a temporary problem," mai tains Nancy S. Newcomb, Citicorp's s nior officer in charge of funding.

This episode alone didn't create funding crisis for Citi. That's becaus 60% of its funding comes from deposit But it remains a severe embarrassmen Last May, Moody's Investors Servic Inc. downgraded Citi's commercial p per. Four months later, the bank quiet halted its weekly commercial paper au tions, claiming it was raising mone through private placements and othe sources.

What can Citi do to reassure inve tors? It can have higher reserve against nonperforming loans. While ot er money-center banks have reserves 70% or more, Citi's reserves against a nonperforming assets were only 39% i the third quarter. Citi says that's plent arguing that it is more aggressive i recognizing bad loans early and writin them off. But since this is tough t prove, many analysts are skeptical.

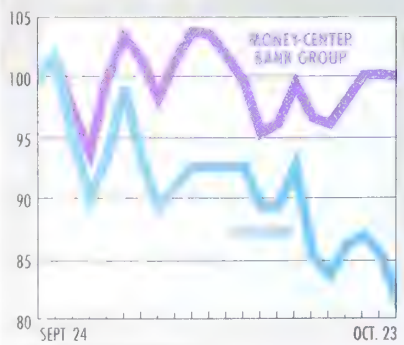
SOME ALTERNATIVES. Beefing up capita to absorb losses is another way to buil confidence. That's why Chase and othe banks have cut their dividend payment a move Citi has been loath to make. Fo the past five years, the lion's share o Citicorp's earnings has been paid out t shareholders, according to C. J. Law rence's Berger. She estimates that if Ci earns $2 a share in 1991, it would, unde its current policy, pay out about 90% o its earnings in dividends. However, sh expects it to follow Chase's lead soon.

Another alternative is to sell assets Already, in early October, Citi sold it 25% interest in the Diners Club fran chise in Japan for $60 million. An inte nal review also has earmarked which as sets are "nonstrategic." Citi coul unload its interest in AMBAC, a municipa bond insurance company, speculate portfolio manager John Neff of th Windsor Fund, a large Citi shareholde Another scenario, according to Neff: Ci might sell a half-interest in its hom banking technology.

Beyond that, the steps become eve more painful, whether it's deep staf cutbacks or curtailing investment in th information-oriented future that Ree sees for Citi. Avoiding those draconia steps is one more reason Reed is unde pressure to take strong action soon.

By Leah Nathans Spiro, with John Me han, in New York

CITI'S STOCK SLUMP



▲ INDEX: SEPT 24, 1990=100

DATA: BRIDGE INFORMATION SYSTEMS INC

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INVESTIGATIONS

THIS MAN MAY HAVE MIKE MILKEN'S NUMBER

Enstar's ousted former chairman ties him to a possible kickback scheme

Working on a hunch, Assistant U. S. Attorney Robert T. Mooney returned to the office one Saturday early in October to take another look at records in the Michael R. Milken case. He spent the day laboriously matching Drexel Burnham Lambert Inc. account statements and trading records. Mooney discovered that Richard J. Grassgreen, chairman of Enstar Group Inc., and his former boss, Perry Mendel, had personally pocketed about $1 million in takeover-related fees paid by Drexel over a number of years.

The discovery led to Grassgreen's resignation in disgrace on Oct. 16. And as part of a plea bargain, Grassgreen provided potentially critical testimony at the presentencing hearing of Milken, Drexel's onetime junk-bond king. No evidence that Milken was involved in this skimming arrangement has surfaced. But it was clear to Mooney that Kinder-Care Inc., Enstar's predecessor company, should have gotten the fees, which were paid in exchange for its commitment to buy bonds in Drexel-arranged takeovers. Confronted with the evidence and knowing that he paid no taxes on the illicit gain, Grassgreen quickly pleaded guilty to two felony counts and agreed to testify against Milken on an unrelated deal.

Taking the stand at Milken's hearing in New York on Oct. 23, Grassgreen provided devastating detail of the anatomy of a possible kickback. He disclosed that Milken personally promised to sell him and Mendel warrants for stock in Storer Communications Inc. after Drexel received a pledge that Kinder-Care would buy $5 million of the stock Drexel sold in the 1985 Storer buyout.

FLOUTING RULES? While Grassgreen says the timing proves that the warrants didn't affect his decision to pledge company funds, he testified that he asked Milken if the warrants were being offered to Kinder-Care. "It's for you and Perry," he said Milken replied. Milken and his attorney, Arthur L. Liman, aren't talking to the press. But Grassgreen testified that he didn't tell Milken he was pocketing the warrants and not disclosing them to his board.

Grassgreen's revelation could help bolster the federal prosecutors' case against Milken. For almost two weeks, the feds have repeatedly stumbled in attempts to tie Milken directly to crimes unrelated to the specific counts to which he pleaded guilty. By baring the Grassgreen-Milken warrant deal, the prosecutors hope to convince U. S. District Judge Kimba Wood that Milken was following a pattern of flouting the rules to ensure the smooth performance of his junk-bond empire. In this case, the prosecutors contend, Milken illegally rewarded Grassgreen and Mendel instead of Kinder-Care because they were the key decision-makers who would be asked to approve future Drexel deals.

ENSTAR'S GRASSGREEN: DEVASTATING TESTIMONY

No matter how the Milken matter turns out, it will be cold comfort for Enstar's stockholders and employees. Long before its Kinder-Care Learning Centers Inc. unit was spun off in and the Montgomery (Ala.) comp was renamed, the fallout from a d trous diversification (table) had hi tax shelter limited partnership busi was closed, and a high-risk arbitrage eration at the S&L subsidiary was s tered after a flood of red ink.

With Grassgreen now out of the Enstar hopes to survive as a slim down retailer, focusing on its Shoe Simply Six, Bargain Town, and Ma chains. Its fleet of aircraft will be and its new $7 million headquarters been put on the market. But as Ens new chairman, investment banker rod T. Frazer, acknowledges, Ens $293 million debt lo going to complicate restructuring.

BAD JUNK. The imme problem is American ings & Loan Associ of Florida, now owned by Enstar. G green loaded it with after Kinder-Care Drexel financing to it over in 1988. But last year, more than million worth of its was transferred to star, which gave ba note promising re ment over five years the underlying bonds' value has plunging. That may push the S&L minimum capital requirements if it write down the note.

Frazer says he can't develop a s gic plan until he talks to regulator also worries that nervous bank le will induce a liquidity squeeze elsew in the company as a r of Grassgreen's plea. doing everything I c keep the jobs of the ers in the Enstar group," Frazer "There's 1,100 of here in Montgomery 2,400 in this state. We every one of those j

Beyond his court tales, Grassgreen talking. Mendel, hasn't been charged any crime, did not re to repeated calls. A the federal prosecu they're hoping tha overtime one of the in on a hunch may c the fate of Michael M

By Chuck Hawkins in Atlanta, with Bruce Ha New York

ENSTAR'S DREXEL CONNECTIONS

INVESTMENT BANKING CLIENT

Kinder-Care, the nation's largest day-care center operator, went on a $325 million buying spree in the 1980s using money mainly raised by Drexel Burnham Lambert. Among its acquisitions: Two Florida S&Ls and a magazine for deer hunters. After day-care was spun off in 1989, this collection of companies was renamed Enstar Group

JUNK BOND PURCHASER

Kinder-Care and Enstar, using money raised by Drexel, accumulated large portfolios of junk bonds—mostly bought from clients of Drexel. But the ploy backfired: As junk prices plummet, write-offs already total more than $107 million, and Enstar's remaining junk portfolio of $379 million was at least $88 million under water at the beginning of 1990

THE STONER LINK

After Kinder-Care pledged $5 million to the 1985 buyout of Storer Communications, Drexel junk-bond chief Michael Milken offered to sell Storer warrants to Enstar Chairman Richard Grassgreen and former Kinder-Care Chairman Perry Mendel. Pressured by outside special counsel, Grassgreen and Mendel paid nearly $1 million to Enstar in May in compensation for the warrants

DATA: BW

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STRATEGIES

HAS WATERFORD SET LOOSE A BULL IN ITS SHOP?

A plan to market German, machine-made crystal could shatter its image

Imagine a Rolls-Royce built in Italy. Or a Patek Philippe watch made in Japan. Unthinkable? Tell that to the management of Waterford Wedgwood PLC, the big Irish maker of fine crystal and china. For decades, Waterford's famous, ornate crystal has been promoted as the ultimate in Irish, handmade luxury. Ads have called Waterford "the ambassador of a nation" and attributed its brilliance to "deep, prismatic cutting that must be done entirely by skilled hands rather than machines."

Or maybe not. Beset by financial woes, Waterford is planning the once unthinkable—shifting production out of Ireland and using machines to make some lines. This Christmas season, Waterford will test reaction in the U. S. by marketing four machine-made gift items, produced to Waterford specifications by a German company. The products—a Christmas ornament, a bowl, a decanter, and a lamp—will be cheaper than similar Waterford items and will be marked "made in Germany," though not "machine-made." They'll be shipped to between 25 and 50 stores. If all goes well, within five years Waterford plans to get a substantial amount of its glassware from outside the Emerald Isle.

HANDICAPPED. Will customers stay loyal? Waterford executives think so. Their consumer research in the U. S.—home to more than 70% of Waterford's crystal sales—indicates that what matters to customers is the Waterford label, not where the crystal is made. Waterford executives won't comment until the test is complete: "We don't want to preempt the consumer," says a spokeswoman. But a source close to the company says Waterford has been handicapped by high prices and inventory shortages because of its handmade manufacturing. Says the source: "Just because you do something more efficiently doesn't mean the product is of any less quality."

But Waterford's retailers fear the brand's image could shatter. Selling German-made products "puts a stake through the heart of Waterford," says George Watts, owner of George Watts & Son, a china and crystal store in Milwaukee. "People are willing to pay three times as much because it's made in Ireland," he says. At least one retailer has refused to sell the test products.

Rival companies also think Waterford's move is about as risky as playing catch with Grandma's goblets. Patrick Baboin, sales director of France's Cie. des Cristalleries Baccarat, notes that both Baccarat and Waterford are the names of towns where crystal has traditionally been made. "We've been working with the same families for 250 years. It would make no sense to produce crystal in another country and call it Baccarat," says Baboin. "But if it's a question of survival, maybe it's worth a try."

Unfortunately for Waterford, it may indeed be a question of survival. The company's crystal division hasn't been profitable since 1986; it lost $26 million in this year's first half on sales of $76 million. Waterford's chairman resigned in early 1989 after accounting errors produced $26.4 million in unexpected losses. Worse, the company al costs to get out of hand. Its unio workers are among the best-paid i land. Add an 83% rise in the Irish against the dollar since 1985, and i wonder Waterford can't make mor the U. S.

'HUGE GAMBLE.' Waterford's savio been Wedgwood, the British china it bought in 1986. Profits on china kept the company afloat while su sive management teams grappled the crystal problems. But conces from the unions did little to turn tide. A new get-tough attitude b last January with the arrival of hard-nosed investors led by H. J. Chairman Anthony J. F. O'Reilly. Irish-born O'Reilly and a group in ing Morgan Stanley & Co. enginee $140 million equity injection into W ford in exchange for a 29.9% stak April, the company picked a fight the unions, prompting a bitter 14- strike in which it won a longer week and work-rule concessions.

Convinced that its cost still too high, Wate has spent month cretly trying to other sources of su The German com involved in the tes Nachtmann, is just o several candidates o continent. Irish pres ports say Waterford is sidering Czechoslov suppliers. Oddly, that be a homecoming of Waterford was started in with Czech craftsmen as backbone of its work force Waterford's unions vo fight the plan. "This is a gamble that could jeopardiz brand name and the whole f of the industry," says Walter len, a union leader. If manage doesn't relent, he says the unions p publicity campaign in the U. S. "A cans should know if they're buyin real thing or a pig in a poke."

If its unions don't do the job, W ford's competitors certainly will. Se small British and Irish crystal comp are now touting homegrown and crafted products. One competitor, perary Crystal, was started in 198 dissident Waterford craftsmen. Pr ing itself as the keeper of Irish craft tradition, the company al ships to 150 stores. Says Denis G U. S. sales agent for Tipperary: "W ford is really making our job easie

By Mark Maremont in Londo Mark Landler in New York, with St Toy in Paris

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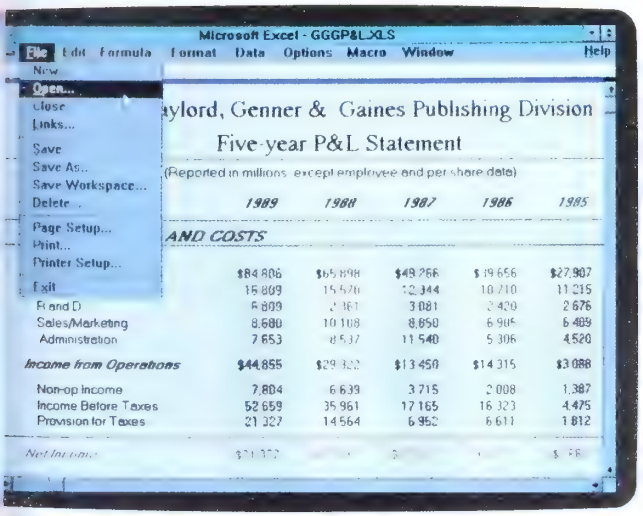
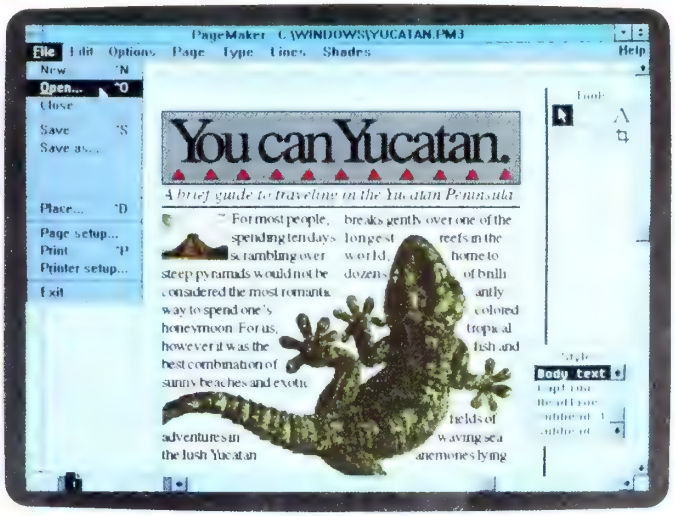
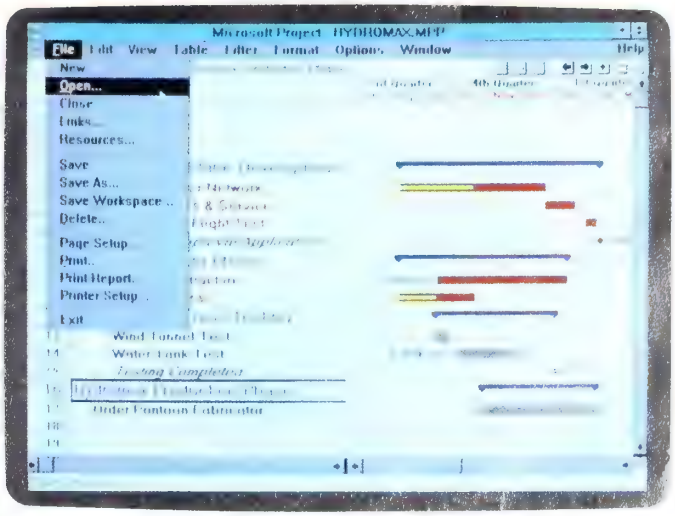






In Business This Week

EDITED BY HARRIS COLLINGWOOD

BAD FINANCIAL NEWS AT FNN

▶ Despite repeated assurances that Financial News Network's operations were healthy, the top brass announced on Oct. 24 that its operating cash flows are "currently insufficient" to meet operating expenses or to cover payments on its bank loans or leases. Infotechnology, which owns 47% of FNN, says it, too, is suffering a cash crunch. What's more, says Infotech, the Securities & Exchange Commission is looking into the companies' finances.

The disclosures, together with earlier signs of disarray at the companies, appear to have brought on a change of management. Earl Brian, Infotech's founder and CEO, has been named "nonexecutive chairman." Decision-making authority now rests with a restructuring team headed by Alan Hirschfield, a managing director at investment bank Wertheim Schroder.

THE THRIFT POLICE STING A GOLDBUG

▶ If the Office of Thrift Supervision has its way, former CenTrust Bank Chairman David Paul will have to give back all that glitters. On Oct. 22, the OTS ordered Paul to fork over the $31 million in thrift assets he allegedly misused. The OTS says Paul's improper expenditures included $29 million for paintings, $35,000 for gold leaf ceilings at the S&L, and $3,500 for gold-plated bathroom plumbing. Paul must respond to the OTS order by Nov. 1. "I can't believe he's going to agree voluntarily," says his attorney, Aubrey Harwell.

IS MATSUSHITA GETTING COLD FEET?

▶ Three weeks after buyout talks began, Matsushita Electric's anticipated $8 billion acquisition of MCA seems to be hitting snags. The deal was initially expected to close in late October. Now, Matsushita has asked for more time to consider the transaction, according to sources close to the talks. In fact, according to sources at the talks, Matsushita said it might even walk away from the deal altogether. Despite a denial from Matsushita that the talks were in trouble, news of the delay sent MCA's stock down by 50 points, to 87⅝.

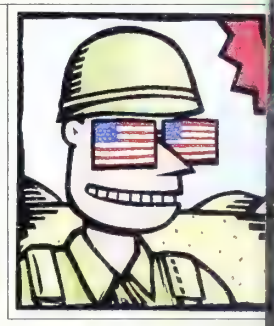
Since Matsushita would be a foreign buyer, it might have to give up some plums. Government regulations would require the Japanese company to sell MCA's WWOR-TV station outside New York City. It also might have to renegotiate MCA's contract to operate the concessions at Yosemite.

AT&T IS IN A TANGLE IN WASHINGTON

▶ AT&T got a jolt on Oct. 23, when a federal appeals court in Washington raised doubts about the company's customized packages of discount telephone services for large corporations. The so-called Tariff 12 offerings have been wildly popular with companies such as American Express, USAir, Ford, GE, and Du Pont.

The three-judge federal panel ordered the Federal Communications Commission to demonstrate that the customized packages don't violate the rules that require AT&T to make the same rates available to all similarly situated customers. AT&T, happy that Tariff 12 wasn't ruled illegal, said it is confident that the FCC will be able to comply with the judges' order.

OPERATION DESERT SHADES



If U. S. soldiers in Saudi Arabia are radiating a little extra desert chic these days, they may have Luxottica Group to thank. Luxottica makes and markets designer sunglasses under such high-tone brand names as Giorgio Armani and Avant-Garde. A while back, company executives were chatting about the conditions in the Saudi desert when it occurred to one of them that a major discomfort there was the bright sunlight. Before could say "Desert Shield," Luxottica was offering the Pe gon 1,000 pairs of sunglasses for the troops.

The Army accepted, under strict conditions. The glasses to conform to good military order. No neon colors or fu shapes, please. Luxottica obliged, but it didn't abandon fashion sense altogether. The glasses, says a spokeswo come in "muted earth tones" chosen especially to comple the color of Army fatigues.

THE FDA MAY BURN A SUNSCREEN MAKER

▶ Summer sunburns have cooled by now, but the Food & Drug Administration is still hot over at least one maker of sunscreens purporting to offer protection from har ultraviolet rays. Earlier year, the FDA warned se sunscreen manufacturers their scientific-sounding tection claims weren't pr

Now, the FDA has turne the heat again. Sche Plough has acknowle that it has received a re tory letter from the ag warning that its claims Shade sunscreen are "fal misleading." If the com doesn't alter its claims o erwise come to terms wit FDA, the product could be ject to seizure.

LORAL IS QUICKLY REFILLING ITS COFFE

▶ Since paying $715 m for Ford Aerospace in Loral has already made deals that will recoup than 40% of the pur price. In the bigger of transactions, Loral on O sold 49% of Space Syst Loral, the new name for Aerospace's commercial lite business, for $182 m to a European consor That's the equivalent o of the unit's 1990 reve By contrast, the price paid for all of Ford Aero was only 40% of its 1989 nues of $1.8 billion.

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WHY THE GOP MAY FLUNK THIS MIDTERM

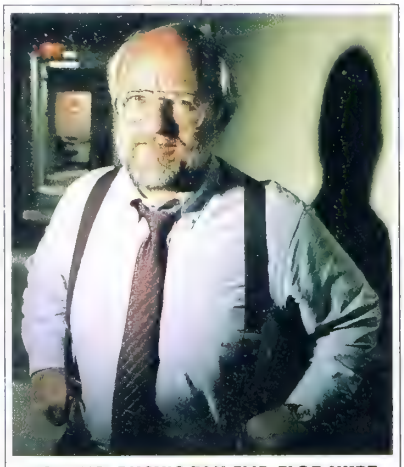
This was the year Republicans were going to defy political gravity. Midterm elections, normally a downer for the President's party, would be a stepping-stone on the GOP's ıth to political dominance. Buoyed by peace, prosperity, and esident Bush's poll ratings, Republicans looked for gains in ongress, statehouses, and legislatures nationwide.

But as Election Day nears, GOP hopes are crumbling. "We're eaded for a regular, old-fashioned midterm election," sighs epublican National Committee Executive irector Mary Matalin. Which is to say, ush and the GOP are bracing for a comeup- ınce from the voters.

Most strategists expect Republicans to se up to 15 seats in the House, maybe a enate seat, and three or four governor- ıips. Also, it could lose control of a few ouses of state legislatures. These losses e more important than they might seem. or one thing, the GOP's dream of recaptur- g the Senate in 1992 depends on gaining least two seats this year. A net loss of 10 ouse seats would weaken Bush's ability to ıstain his increasingly frequent vetoes. nd control of statehouses and legislatures critical to the upcoming reapportionment.

'RETTY STUPID.' Fate, miscalculation, and ırprising ineptitude combined to hurt the OP. The economy has gone sour, and events in the Middle ast have taken the bloom off the outbreak of peace in Eu- ope. But the Administration caused many of its own woes. Somehow, the Bush team has fallen into every single trap ıid for them by the Democrats," says University of Virginia olitical scientist Larry J. Sabato. "And for a group of smart eople, they have done some pretty stupid things."

The pivotal mistake was Bush's handling of the budget. His ecision to abandon his no-tax pledge pulled the rug out from nder Ed Rollins, director of the National Republican Congres- ional Committee, who had urged GOP candidates to make opposition to taxes the centerpiece of their campaigns.



ROLLINS: BUSH'S TAX FLIP-FLOP HURT

Worse, the President got nothing in exchange for his concession. Instead, by opposing tax-rate hikes for the richest Americans, he gave the Democrats a huge opening. "Now, the public believes Republicans are protecting the rich of this country, and they resent it," says Doug Sosnik, political director of the Democratic Congressional Campaign Committee. Adds Steven Schier, a political scientist at Carleton College: "Bush has proven to be congressional Democrats' best friend."

Also, a strategy that seemed smart is backfiring. The GOP lured seven attractive House veterans to run for the Senate. But this year, Washington experience seems to be the last thing voters want. "It's rather perverse," says University of Houston political scientist Bruce Oppenheimer. "They recruited a bunch of House incumbents to run in an anti-incumbent year."

As times turned tough, GOP efforts at damage control were clumsy. The big reason: The party's best strategist, RNC Chairman Lee Atwater, has been sidelined by a brain tumor. The committee of operatives running the RNC in his absence hasn't measured up. "There are no political gut-fighters in the mix anymore," says one top GOP adviser. "We need someone over there who can say to the President: 'George, this is nuts.' "

There are still some bright spots for the GOP. While they may suffer a net loss of governorships, the party could easily win two of the "big three" races: Florida (page 111), Texas, and California. GOP candidates also lead in Illinois and Ohio.

But such victories would be small compensation for the missed opportunity of 1990. Losses in the House and Senate would make it even harder for Bush to govern. And the GOP's long road to political dominance looks bumpier than ever.

By Douglas Harbrecht and Paula Dwyer

CAPITAL WRAPUP

POLITICS

Could tough-talking cowboy Clayton Williams be talking himself out of the Texas governor's race? Republican Williams, a Midland oilman and rancher, once led Democratic State Treasurer Ann Richards by as much as 15 percentage points in the polls. But a new *Fort Worth Star-Telegram* survey has Richards closing the gap to five points. Apparently, a key factor in the decline was Williams' shoot-from-the-lip performance at a recent joint appearance with his rival. Williams stormed over to Richards, spurned her offer of a handshake, and branded her a "liar" as stunned guests looked on. But Richards still faces an uphill run: Most of the support Williams lost went into the "undecided" column instead of to her. Half of all voters disapprove of her, compared with Williams' 40% negative rating.

THE ADMINISTRATION

The resignation of Labor Secretary Elizabeth H. Dole presents President Bush with a challenge—and an opportunity. Bush will be under pressure to replace the only female Cabinet department head with another woman. The election could provide him with a strong prospect: Representative Lynn Martin (R-Ill.), who is trailing badly in her race against Senator Paul Simon.

SUMMITRY

President Bush could use a boost right now, but don't look for a superpower summit to provide it. The White House is talking up the possibility of a yearend meeting between Bush and Soviet President Mikhail Gorbachev to sign a strategic arms treaty. But senior Administration officials fear the event would lack the pizzazz needed to make it worthwhile. Bush and Gorbachev will meet at a Europewide security conference in Paris in November. And Gorbachev stars in December, when he receives the Nobel peace prize in Oslo. A summit gala now seems unlikely before January or February.

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THE FRENCH HIT SOME POTHOLES ON THE ROAD TO 1992

Compagnie de Suez and Michelin bought their way to bigness. Now, the bill is coming due

More than any other country, France has sought to capitalize on the enthusiasm surrounding Europe 1992 to build its industries to world-class size. As latecomer to the global acquisition game, the French re making up for lost time. Last year, they became ie biggest player in Western Europe, making one-third f all acquisitions. The French are also pouring money into U. S. purchases: $6 billion so far this year. This binge has brought heft. Thanks to buyouts, French companies now hold leading roles in steel, cement, tires, packaging, and hotels. But Gallic appetites may be bigger than Gallic stomachs. Although the strategy may pay off in the long run, it's causing some problems now. Look at Compagnie de Suez and tiremaker Michelin.

UEZ: THE RAIDERS RE FORCED TO REGROUP

hey were the best, the brightest, and the embodiment of a self-confident France. During the four-year eign of the late Chairman Renaud de la enière, the men of Compagnie de Suez et out to conquer Europe. Likening iemselves to the troops at Wall Street akeover powerhouse Kohlberg Kravis oberts & Co., Suez' financial engineers attled it out on the bourses to build an mpire with $72 billion in assets ranging om annuities to zinc.

But now, the raiders of Suez are on ie defensive for the first time ever. ven before de la Genière died on Oct. 6, the group was increasingly unable to efend itself against the powerful forces f high interest rates, a slowing Europen economy, and a sinking dollar. Newly ppointed Chairman Gérard Worms, 54, quickly shifting Suez' focus. "We're oing to tighten the reins," he says.

ONFLICTS. Befitting a conglomerate hose assets tripled in only three years, uez is due for a slim-down. Weak comodity prices, slumping arms sales, and slowing real estate market are pumeling its 55%-owned Société Générale e Belgique (SGB), the Brussels-based olding company that Suez wrested rom Italian financier Carlo de Benedetti n a $2 billion takeover fight. Insurance rofits have flattened after Suez spent 5 billion to acquire French insurer Vicoire, which itself had bought German nsurer Colonia Versicherung. And a alling dollar and deteriorating Europen corporate profits have been squeezng de la Genière's centerpiece, Banque ndosuez.

On top of that, Suez' foreign subsidaries may have been conquered, but hey have hardly been tamed. That suggests Europe's recent passion for cross-border mergers may breed more conflicts than the dealmakers ever allowed. Suez' relations with SGB are cooling despite a post-takeover management shakeup worked out by the French and Belgian sides. And Victoire has been unable to influence the management of Colonia, where one German executive brags "it's business as usual" despite the takeover.

To make things worse, everyone at Suez is at loggerheads with the politically powerful Jean Peyrelevade, chairman of the $13 billion French state-owned Union des Assurances de Paris. To help finance his insurance takeovers, de la Genière sold 34% of Victoire and Colonia to Peyrelevade for $2.8 billion. Now, Peyrelevade is demanding a say in how the Franco-German group is run. The decisive factor in the succession battle between Worms and his co-managing director, Patrick Ponsolle, was who would best be able to pacify Peyrelevade. Worms is a conciliator by nature and has had long experience as a manager at France's top corporations.

JITTERY INVESTORS. Worms's first task will be to persuade the management of Victoire, until now suspicious of UAP, to work with its minority owner. But several joint projects proposed by UAP have fallen on deaf ears. "After six months of life in common, there is no willingness to cooperate," complains a UAP official. More difficult yet, Worms will have to force the German Colonia, which has little enthusiasm for the government-owned insurance giant, to team up with its French partner.

Unlike its frosty relations with UAP, Suez' dealings with SGB after the takeover were harmonious. But the friendship is waning now that SGB, which used to rule over a third of Belgian industry, is entering a less prosperous environ-

HEADACHES AT THE SUEZ GROUP

SOCIETE GENERALE DE BELGIQUE The $13 billion conglomerate's profits plunge 36% in first half amid slumping commodities and arms sales

GROUPE VICTOIRE Acquired for $5 billion in 1989, the French insurance giant is now stagnating. Conflicts mount between Victoire and state-owned Union des Assurances de Paris, which bought 34% of the insurer from Suez

BANQUE INDOSUEZ Bad loans, a falling dollar, and Tokyo's stock market crash cut operating profits 7% in first half

DATA: BW

ment. The man bearing the brunt of this dissatisfaction is Hervé de Carmoy, a French banker brought in by Suez as SGB's chief operating officer. Despite valiant efforts to learn Dutch and get along with the Flemish community, he is losing out to Etienne Davignon, the Belgian chairman, who is taking a bigger role in SGB's day-to-day operations.

Worms now is expected to move to slim down SGB by disposing of its troubled armsmaking subsidiary and streamlining its cash-cow mining and banking units. He also may slash SGB's management and may not extend de Carmoy's contract after it expires in May. Worms won't comment directly, saying only, "it's in difficult times that one can judge the quality of a team." But even if de Carmoy remains, Suez is losing leverage over SGB. Suez had planned to raise $2 billion in the French stock market to help ease SGB's $8.6 billion debt burden. But an equity issue is clearly out of the question in today's depressed mark

Such questions leave investors jitter Suez' stock has lost 40% of its val since April, and with a market capitaliz tion of only $7.8 billion, some Lond banking analysts think the group h become a takeover target. No one turning the tables just yet on France premier buyout machine. But France golden boys are in for hard times.

By Blanca Riemer in Paris, with Jon than Kapstein in Brussels

MICHELIN: THE HIGH COST OF BEING A BIG WHEEL

France's François Michelin has been driven by an abiding goal: to push his company, Michelin, past Goodyear Tire & Rubber Co. as the world's No. 1 tiremaker. Last May, he got his wish when Michelin paid $715 million for the No. 2 producer in the U. S., Uniroyal Goodrich Tire Co. The deal rolled Michelin into first place in its industry.

But arriving at the top is proving painful. Added to the problems of being in a cutthroat industry burdened with overcapacity, the buyout pushed up Michelin's debt. The shock of it all was brought home in mid-October, when Michelin forecast a $460 million loss for the year. Tiremakers everywhere are suffering, but none is losing that kind of money. Many outsiders blame the new French appetite for bigness. In Michelin's case, "there's some sense" to its U. S. strategy, says Bernard Heuzé, an analyst with Paris brokerage firm Sellier. "But I think there's also lots of egoism in becoming biggest in the world."

CAPITAL CUTS. François Michelin has no regrets, arguing that globe-girdling size is essential for a company that wants to be a long-term player. "My grandfather"—company co-founder Edouard Michelin—"told me before World War II that we must be strong in all of the world's markets," says Michelin, 64, one of three co-managers who run the company. With the Uniroyal acquisition, "we are now big enough," he says.

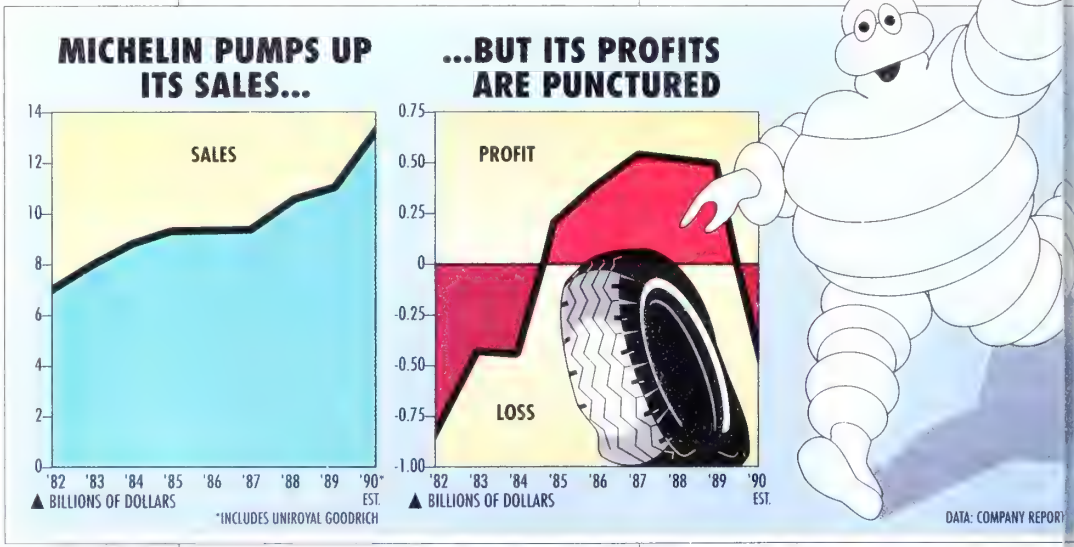
The timing of the deal wasn't the best. U. S. auto sales were slumping. So was the dollar. Its decline against the French franc cost Michelin $166 million in the first half. By most accounts, Michelin has been the chief aggressor in a brutal price war in Europe, where the company holds a 35% market share vs. 25% in the U. S. With car markets weakening and oil-based tire materials more expensive, Michelin seems likely to lose money next year, too.

To offset its losses, Michelin is slashing capital spending 60% next year, to $600 million. In the U. S., Uniroyal will get only $100 million in 1991, less than its executives had expected and far below what outside tire experts say it needs to compete. Michelin disagrees: "We don't see the need for colossal investments, just modernization," says Carlos Ghosn, head of the French company's U. S. operations.

The red ink is a sobering about-face for a company that skirted bankruptcy in the early 1980s but had been recovering nicely (chart). Although Michelin's debt has zoomed back to record heights—$6.7 billion—the company is now far bigger. Its cash flow remains positive. It has $2 billion in cash, and it has unused bank-credit lines.

WEEKEND WORK. Moreover, some observers think the company is hyping the gloom. Normally secretive Michelin flew 100 analysts to its Central France headquarters on Oct. 18 for a morning of morose forecasts. Possible motive: to persuade unions and the government to accept new layoffs on top of an 11 cutback announced last Februar Michelin also wants permission to run i French plants on weekends to impro productivity.

Still, Michelin's problems are re Mergers have created a few huge ti companies that are fighting hard f market share. Michelin especially fears Japan's Bridgestone Corp., which bought Firestone Tire & Rubber Co. in 1988. Goodyear "doesn't worry us at all," con-



tends a Michelin executive, "but Bridg stone has a long-term view and a tec nology culture like ours." In Europ Michelin's price cutting is viewed part as a warning to the Japanese to go slo Over the past three years, tire prices f auto makers have dropped 40%, says official of Germany's Continental.

Barring deep recession, Franço Michelin should weather this crisis mo easily than the last one. He's alread promising tantalizing new products boost sales: a truck tire that lasts 30 longer and a "quiet" car tire that cu fuel use by 3%. Maybe then, Michelin boss will get his chance to prove th being No. 1 was worth it after all.

By Stewart Toy in Clermont-Ferran France, with Zachary Schiller in Clevela and bureau reports

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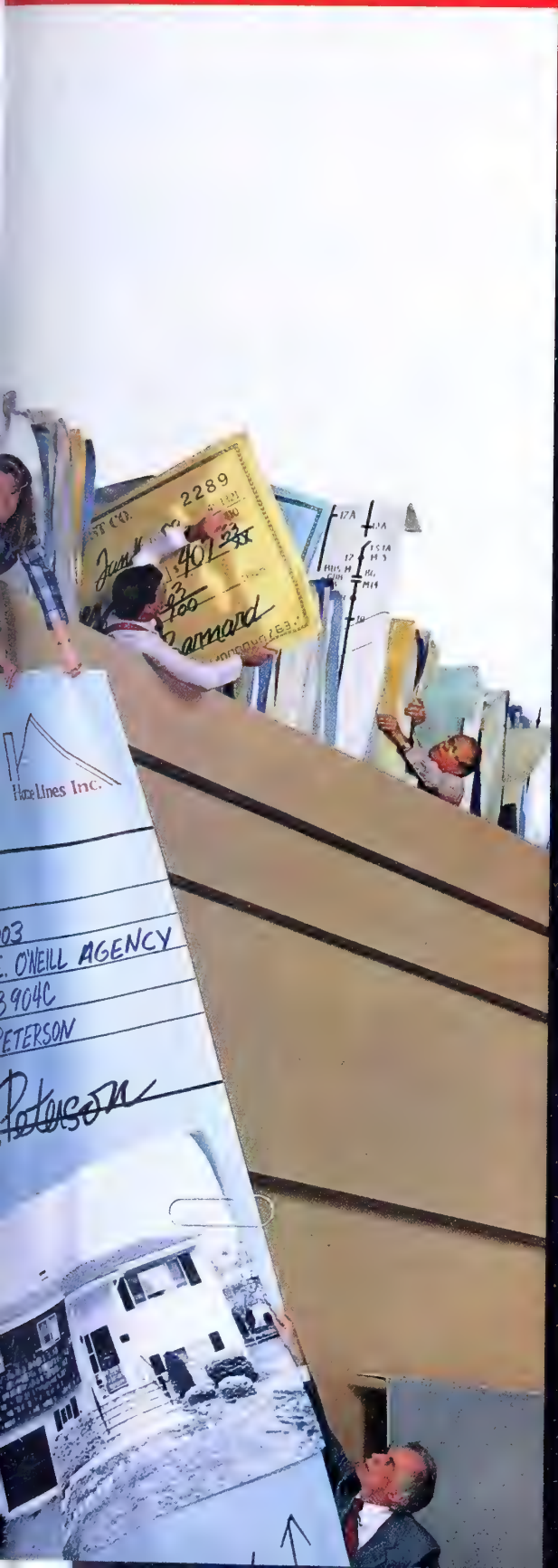

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OVIET UNION

'THE ECONOMY WILL TURN INTO A WILD BEAST'

Fears of hyperinflation are fueling a rift between Gorbachev and Yeltsin

Outside Moscow's Dorogomilovskaya Market, Maria Vasilieva, 80, is hawking her only good winter coat as the season's first snowflakes swirl around her. It may bring 5 rubles to top up her tiny monthly pension of 70 rubles—enough to buy about seven pounds of the beef that's going fast at the farmers market inside. Turning her eyes from the cold wind, she sighs: "Life is very hard."

Indeed, hope is growing dimmer that economic collapse can be stopped. Fresh battle lines are being drawn between President Mikhail Gorbachev and Russian Republic President Boris N. Yeltsin. They are ready for a duel over control of reform policy now that Gorbachev has reneged on backing a package he had created with Yeltsin. That plan might have stemmed the free-fall and laid the foundation of a market economy within 500 days. Instead, Gorbachev compromised with Kremlin conservatives and won parliamentary approval on Oct. 19 for a vague reform blueprint that advocates moving to a market economy without saying in detail how or when.

To implement his plan, Gorbachev intends to use new presidential decrees that supposedly carry the force of law. But Yeltsin aides say the Russian republic's parliament could declare that many of the decrees don't apply to them. "Anything that goes against the interest of Russia will not be ratified," declares Gennadi Filshin, deputy prime minister of the Russian republic. The Yeltsin team's goal: toppling Nikolai I. Ryzhkov, Gorbachev's conservative Prime Minister, and forcing Gorbachev to form a coalition government with radicals that would adopt the original 500-day plan.

Meanwhile, Russia aims to push ahead with part of the 500-day plan. Aided by Alan Walters, the British economist who helped shape Margaret Thatcher's privatization program in the early 1980s, Russian officials are working out the details to start selling off hundreds of stores, service businesses, and small factories under their jurisdiction by yearend.

Clashes with the central government are sure to erupt. Although Gorbachev's program dubs each of the 15 Soviet republics "sovereign" and responsible for its own reform programs, it retains central control over industries that earn the bulk of hard currency, such as oil and timber. Besides Russia, other republics are also bucking the center. Ukrainian parliamentarians are already looking at issuing a Ukrainian currency as part of their own reforms. Estonia and Lithuania have also held talks with Western bankers on creating their own monies. If the street price of the 5¢ ruble continues to fall, the nation soon may not have a single monetary standard.

EGGING IN MOSCOW: FOOD PRICES HAVE SHOT UP 24% IN THE FIRST NINE MONTHS OF THE YEAR

TAKING TO THE STREETS. That may not be the Gorbachev plan's only crucial flaw. Top Yeltsin aides believe it will trigger hyperinflation, which could lead to strikes and riots. By government estimates, prices at private farmers markets, the only places in which food in any quantity can be found, have already shot up 24% in the first nine months of the year. Moreover, the government hiked the price it pays for meat and other agricultural goods by about 50% on Oct. 1. Grigori A. Yavlinsky, a Yeltsin adviser and coauthor of the 500-day plan, says spiraling inflation is inevitable as other wholesale prices are freed in January. Some retail prices could shoot up three or four times overnight. "The economy will turn into a wild beast," he says.

The Gorbachev plan calls for preventing inflation through strict price controls on key goods such as oil. But it also relies on such inflation-generating steps as indexing wages to compensate citizens against price hikes. By contrast, the more radical plan calls for such anti-inflation measures as slashing a huge 100 billion ruble budget deficit by immediate cuts in foreign aid and the budgets of the KGB and military. Yet Leonid Abalkin, a top Gorbachev economic adviser, claims the deficit can still be cut to 30 billion rubles next year.

In the end, the big question is how much the extraordinarily patient Soviet people can take. Already, more than 40 million citizens are stuck on low incomes. Mounting inflation on top of worsening shortages could bring people out on the streets. That's the word in a makeshift tent city filled with close to 300 homeless and jobless next to the Kremlin. Says Olga Aldoshina, a 70-year-old pensioner living in a cardboard box: "Shops are empty, there is no bread. They say prices will be raised by three times." A hard winter is falling.

By Rose Brady, with Rosemarie Boyle, in Moscow

> If the ruble continues to fall, Gorbachev may soon have a nation with more than one monetary standard

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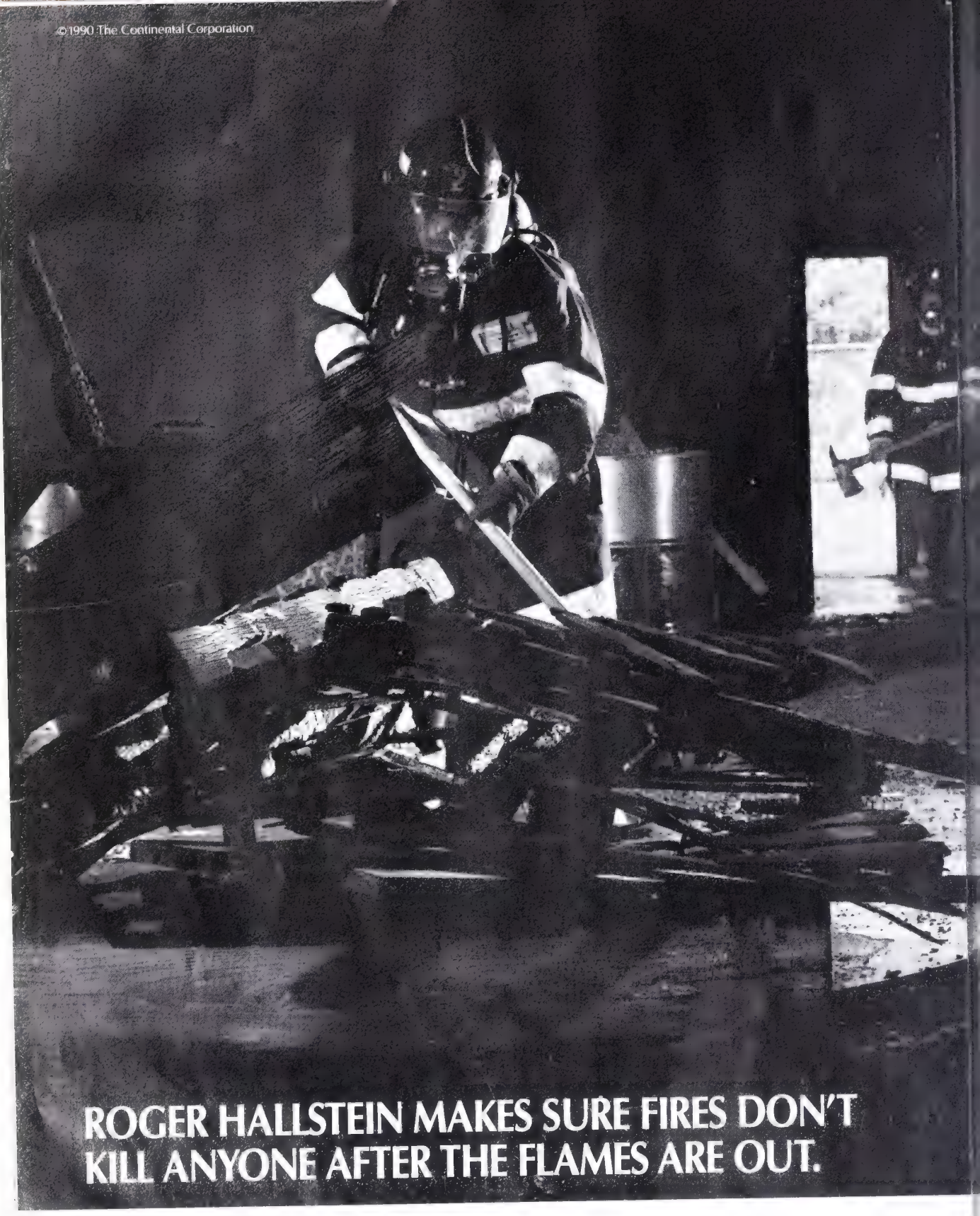

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EDITED BY JOHN PEARD

POLAND ISN'T JUST PICKING A PRESIDENT, IT'S PICKING A FUTURE

In the grim textile town of Lodz, the benefits of a market economy seem remote. Official subsidies to industry have been cut, trade with the Soviet Union has collapsed, and thousands of workers have been laid off. Jerzy Dluzniewski, a member of Parliament from Lodz, is backing Solidarity leader Lech Walesa in Poland's Nov. 25 presidential election because he promises faster change. Walesa will run the government "like a little dictator, and that's just what Lodz and all of Poland needs," says Dluzniewski.

A year after a Solidarity-led movement swept the Communists from power, Poles are finding parliamentary democracy's pace of reform tortuously slow under Prime Minister Tadeusz Mazowiecki's transition government. Mounting frustration could give the edge in a close presidential race to the populist Walesa, who has split Solidarity with his vow to "rule by decree" if necessary to speed economic change. Recent polls show him tied with Mazowiecki, a former Walesa adviser, with 40% of voters still undecided. Mazowiecki has lowered inflation to a monthly 4%, from 600% a year ago. But privatization, the crucial next step in reform, has been delayed by a debate over how to sell state-run companies to workers and foreigners. Mazowiecki pledges, nevertheless, to "stay the course" in a painful evolution to a market economy. By contrast, Walesa's imperious style could cause frequent clashes with Parliament, Mazowiecki's supporters say, and jeopardize the nation's infant democracy.

CANDIDATES MAZOWIECKI AND WALESA

'REAL CHOICE.' At stake is the future shape of Poland's political system. Whoever wins will play a large role in drafting a new constitution in 1991 to replace the government that grew out of last year's Solidarity compromise with the former Communist rulers. Walesa wants to give the President sweeping executive powers, while Mazowiecki favors a stronger parliamentary system. Those options are the "real choice" in the election, says Jerzy Baczynski, deputy editor of the newspa *Polityka*. "We are picking a President before we defin presidential role," he laments.

The election, and the new constitution's rules on chu state relations, will also determine the role of the powe Catholic Church in Poland's emerging democracy. Already, h church has won a controversial one-year decree to teach tholicism as an optional course in public schools and spurred moves to outlaw abortion. Although church lead have not openly backed either candid Walesa would be likely to permit gre church influence in state affairs t would Mazowiecki. "The Walesa cam Catholic, the Mazowiecki camp is plu istic," says Dieter Bingen, a Poland pert at Cologne's Federal Institute East European Studies.

Despite Walesa's sloganeering swifter economic reform, few expect to achieve it if he wins. A fast track t market economy would require Wal to shutter at least one-third of the tion's industry, throwing millions of supporters out of work. And a quick infusion of fresh cap could be achieved only by selling off industry at bargain pri to foreign investors, causing widespread layoffs and stirr an outcry against squandering the nation's assets. "Privat tion can't be successful without grass-roots support," s Henryk Wujec, a Solidarity member of Parliament.

From Prague to Budapest, governments of neighbor countries fear that the hard steps needed to create a mar economy will erode their popular support. But using br executive powers to slam through tough economic measu could also provoke a popular backlash—and a new wave political chaos. Poland's election will test Eastern Europ chances of combining democratic checks and balances w effective market reform.

By Gail E. Schares in Warsaw, with Lynne Reaves in L

GLOBAL WRAPUP

SOVIET UNION

Whatever happened to the great Soviet-aid debate? Only three months ago, George Bush fretted that European allies were going to leapfrog the U. S. with aid to Moscow, hoping to gain an edge in future trade and investments. The Bush Administration considered it a victory when it persuaded the allies to hold back aid until the European Community, International Monetary Fund, and World Bank completed studies of the Soviet economy.

Now, Washington's earlier fears of an aid free-for-all seem almost quaint. With Soviet economic reforms stalled and the Soviet Union itself in danger of breaking apart, all Western governments are convinced that loans to Moscow would be wasted. The battling in Moscow over reform has delayed the EC study. As a result, no decision on aid was expected at an EC summit in Rome on Oct. 27-28.

Teams working on studies for the World Bank and the IMF have been "swamped," says a World Bank source, by chaotic, inconsistent, and frequently falsified economic data from the Soviets. As a result, they may not make a yearend deadline for their report. And the charter for a new European bank to lend to the Soviets and Eastern Europe won't be ready until next spring.

BRITAIN

Economic strains, plus internal rov over issues such as social spendin are adding to the political woes Prime Minister Margaret Thatcher Conservative Party. The Tories lost a Oct. 18 by-election to the Liberal Dem ocratic Party, and they face a gener election by mid-1992. But the near-r cession is limiting Thatcher's ability spend more on politically sensitive pr grams, because her budget surplus evaporating as entitlement payment rise. National Westminster Bank eco omist David Kern expects the budge to plunge to a $4 billion deficit in th next fiscal year.

Timetable
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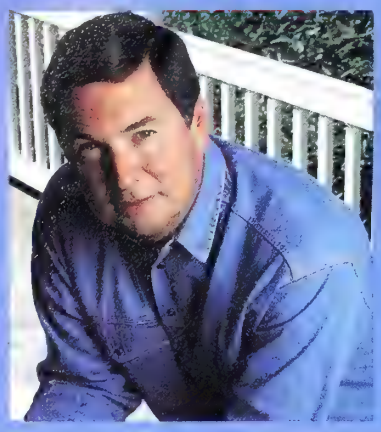

STRATEGIES

FOR LEVI'S, A FLATTERING FIT OVERSEAS

The jeans maker is handily sewing up lucrative markets in Europe, Japan, and Latin America

Twice a year, Levi Strauss & Co. calls together managers from its worldwide operations for what's best described as a cross between a U. N. assembly and an MTV video awards show. At the powwow, conferees brainstorm, schmooze, and watch splashy television ads from around the globe. If a marketing type from, say, Singapore finds an ad campaign appealing, he's encouraged to take it back home to sell more Levi's blue jeans.

That's precisely what happened a few years back with a clever British commercial. A spoof of stone-washed denim, the spot featured a young man throwing his Levi's into a laundromat washing machine along with some rocks, to the tune of Marvin Gaye's *I Heard It Through the Grapevine*. The ad was such a smash that Levi's units around the world, including its U. S. arm, picked it up. Says Lee C. Smith, president of Levi Strauss International: "We seek out the best ideas and trade them."

That kind of transnational outlook goes a long way toward explaining why privately held Levi's is the only U. S. apparel maker that honestly can be called global. It has deftly capitalized on the Levi's name abroad by marketing it as an enshrined piece of Americana—and foreign consumers have responded by paying top dollar for such cachet. Levi's success turns on its ability to fashion a global strategy that doesn't snuff out local initiative. It's a delicate balancing act, one that often means giving foreign managers the freedom needed to adjust their tactics to meet the changing tastes of their home markets.

TIGHT CONTROL. Meanwhile, the folks at Levi's San Francisco headquarters maintain tight control where it counts. To protect Levi's cherished brand identity and quality, the company has organized its foreign operations as subsidiaries rather than relying on a patchwork of licensees. It's also trying to keep a step ahead of fashion trends by exporting its pioneering use of computers to track sales and manufacturing. All told, Levi's approach epitomizes a slogan that's becoming increasingly popular among U. S. companies: Be global, act local.

The slogan isn't an empty one at Levi's. As the U. S. denim jeans market continues to shrink, foreign sales are driving Levi's growth. In the nine months ended in August, about 39% of the company's total revenues (chart) a 60% of its pretax profit before inter and corporate expenses came fr abroad. True, the weaker U. S. do has helped. Even so, Levi's enjoys fas growth than many of its foreign riva

So far, Levi's has benefited from m agement turmoil and merchandis woes at its major competitor, VF Corp Wyomissing, Pa., which sells blue je worldwide under the Lee and Wrang names. Still, VF is pushing to expand $200 million-a-year jeans business in rope and is racing with Levi's to re jeans-starved consumers in Eastern rope and the Soviet Union.

Ironically, it wasn't that long ago t Levi's stumbled around overseas lik clumsy American tourist. Back in 1 and 1985, its international operati were losing money. A strong dollar cl bered foreign sales, and the design jeans craze made Levi's basic five-poc model look rather déclassé. Meanwh Levi's had strayed far afield from jea getting into specialty apparel.

By the mid-1980s, Chief Execut Robert D. Haas recognized that Le was squandering its brand identity jeans. So, he dumped the fashion b

AS LEVI PUSHES HARDER OVERSEAS...

...ITS STRONGEST GROWTH COMES FROM ABROAD

Regions	Estimated 1990 revenues Million of dollars	Percent change from year earlier
U.S.	$2,500	6%
FOREIGN	1,606	32
EUROPE	968	47
ASIA	301	19
CANADA	209	6
LATIN AMERICA	128	27

** SHARE OF REVENUE FROM FOREIGN SALES

DATA: LEVI STRAUSS & CO., BW

nesses and focused anew on blue jeans, at home and abroad. Then, in 1985, the great-great-grandnephew of company founder Levi Strauss, a Bavarian immigrant who sold canvas pants to California gold seekers, took Levi's private in a leveraged buyout. The restructuring paid off: Operating income hit $589 million in fiscal 1989, up 50% since 1986. Sales rose 31%, to $3.63 billion.

DUBUQUE TO DJAKARTA. Since then, Levi's foreign ads have played up the company's American roots. An Indonesian television commercial shows Levi's-clad teenagers cruising around Dubuque, Iowa, in 1960s convertibles. In Japan, James Dean serves as the centerpiece in virtually all Levi's advertising. And in most foreign ads for Levi's 501 button-fly jeans, the dialogue usually is in English. Says John G. Johnson, president of VF International: "The positioning of the 501 has really set them apart."

In more ways than one. Overseas, Levi's has cultivated a top-drawer image that would surprise most Americans, and the company is pricing accordingly. A pair of 501 jeans sells for $30 in the U. S. but fetches up to $63 in Tokyo and $88 in Paris. To protect that tony image, Levi's eschews mass merchants and discounters abroad.

Levi's snob appeal has meant lush profit margins. The company's international operation has the highest profit per unit of the company's seven operating divisions. Levi's garners gross margins of 45% on 501s sold outside the U. S., compared with less than 30% domestically, figures Bernard Duflos, chairman of the North American unit of London-based Pepe Clothing Inc., a jeans marketer.

Even so, Levi's upscale marketing effort is only part of the story. The company also has smartly orchestrated its production and distribution activities worldwide. In fact, Levi's opted early to open subsidiaries overseas rather than rely on licensees to make and sell its products. "It's important for a brand like ours to have a single face," says Smith. "You can't control that if you have 20 to 25 licensees around the world interpreting it in different ways."

To provide merchandise for its foreign subsidiaries, Levi's stitched together a global manufacturing network. With a mix of its own 11 sewing plants and contract manufacturers, Levi's can supply foreign customers from nearby factories. And by shortening shipping times, Levi's can react speedily to fads in denim shading.

Technology is also helping Levi's stay on top of global fashion trends. Through its Levi-Link system, retailers can transfer sales and inventory data from bar-coded clothing direct to Levi's computers. In the U. S., Levi's receives 30% of its orders electronically. Abroad, just 10% of orders are transmitted by computers because of the diversity of software standards and the lack of affordable computer hardware. But that could change, as computer use abroad becomes more widespread.

TOAST OF TOKYO. Levi's innovative approach overseas has allowed it to penetrate one of the world's toughest markets—Japan. The company set up its Japanese subsidiary in 1971. "That was a very important strategic decision—not to go the joint-venture or licensing route," says David E. Schmidt, a Canadian who runs Levi Strauss Japan, where only 4 out of 400 workers today are non-Japanese. "We brought over our own people and hired and trained Japanese."

Today, Levi's holds the No. 2 position in Japan behind domestic rival Edwin Co., up from No. 5 four years ago. Earnings for fiscal 1990 are expected to jump 38%, to $23.2 million, on $224 million in sales, a 30% gain. To gain a stronger local identity and raise cash, Levi's sold 15% of its Japanese subsidiary to the public in 1989.

In Brazil, Levi's prospers by letting local managers call the shots on distribution. For instance, Levi's penetrated the huge, fragmented Brazilian market by launching a chain of 400 Levi's Only stores, some of them in tiny, rural towns. The stores now pull in 65% of Levi's $100 million-a-year Brazilian sales.

Levi's also is sensitive to local tastes in Brazil, where it developed the Feminina line of jeans exclusively for women there. Brazilian women traditionally favor ultratight jeans, and the curvaceous cut provides a better fit. What Levi's learns in one market can often be translated into another. Take the Dockers line of chino pants and casual wear: The name originated in Levi's Argentinian unit and was applied to a loosely cut pair of pants designed by Levi's Japanese subsidiary. The company's U. S. operations adopted both in 1986, and the line now generates $550 million a year in North American revenues.

Its next conquest? Levi's now has its eyes riveted on Eastern Europe and the Soviet Union. Selling there certainly won't be a cakewalk, what with currency and supply problems. But as the jeans maker has already amply demonstrated, with the right mix of persistence and smarts, cracking new markets can seem as effortless as breaking in a new pair of Levi's stone-washed jeans.

By Maria Shao in San Francisco, with Robert Neff in Tokyo, Jeffrey Ryser in São Paulo, and bureau reports

A JAPANESE CATALOG: EVOKING JAMES DEAN'S ALL-AMERICAN IMAGE

ILLUSTRATION BY RAY VELLA/BW

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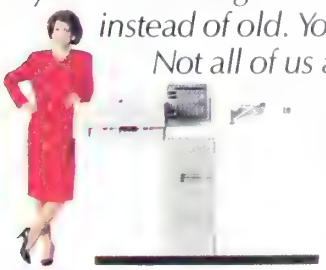

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TRANSPORTATION

THEY'RE EYEING THE EXITS AT CATHAY PACIFIC

Can the airline keep its staff as China's 1997 takeover approaches?

As airline careers go, a job at Hong Kong's Cathay Pacific Airways Ltd. seems like a plum. Cathay has one of the premier names in the business, it's growing fast, and it pays better than most of its Asian rivals. So why have 100 of Cathay's mechanics fled Hong Kong for Australia? Because Sydney-based Qantas Airways Ltd. is luring them away with promises of Australian citizenship. Fearing the takeover of their island in 1997 by mainland China, many Hong Kong Chinese are looking for a quick ticket out.

The great Hong Kong brain drain is starting to hurt at Cathay Pacific. Richly profitable and highly regarded, Cathay should be cruising smoothly. Instead, like most Hong Kong businesses, its ability to tap the vitality of the Pacific Rim is being hampered by uncertainty over Hong Kong's future. Loath to forfeit its golden franchise as Hong Kong's executive airline, Cathay is staying put. But as 1997 approaches, it is going to extreme lengths to keep employees. And costs are reaching new altitudes.

WIDEBODY BINGE. Seemingly unafraid, Cathay is determined to cash in on Asia's booming air-travel market. To keep up with such aggressive rivals as Singapore Airlines Ltd. and Japan Air Lines Co., the carrier is on an expansion binge. By 1995, it will lay out $5.7 billion for 22 new Boeing and Airbus widebody jets, boosting capacity by about 50%.

That, however, will create thousands of new jobs at a time when Cathay is paying handsomely to keep the workers it already has. Cathay doesn't release wage scales, but analyst Philip Mok of Barclays de Zoete Wedd Ltd. estimates wages have risen 30% since 1988. Add that to skyrocketing fuel costs and sluggish passenger traffic—problems common to all airlines these days—and profits suffer. In the mid-1980s, Cathay was one of the world's most profitable airlines, sporting an operating margin of 25% in 1987. Since then, the margin has dropped to about 20%, analysts estimate, even though revenues are expected to jump 13%, to about $2.5 billion, this year.

Of course, an operating margin of 20% is far from shabby, especially in the airline industry. But Cathay has come to expect much better. And if it's having staffing problems now, how will Cathay cope with its huge fleet expansion? "Clearly, it is a worry," concedes Cathay Chief Operating Officer Rod Eddington.

By 1997, Cathay's work force of 12,200 will have to grow by 50%. Problem is, a record 60,000 of Hong Kong's 5.5 million residents emigrated last year, and Hong Kong's white-collar professionals are leaving in droves. Of the 700 managers Cathay regards as key, up to 10% emigrate each year. But even getting a fix on the problem isn't easy. When Cathay informally polled its managers three years ago, 30% said they planned to leave, and 30% promised to stay. Soon after, it got three resignations—all from managers who had said they would stay. Recently, it did a more sophisticated poll. "We weren't expecting a rosy picture, and we didn't get one," says a Cathay executive. "We assume everybody is making plans to go."

One option Cathay doesn't have is to join the Hong Kong exodus. That would jeopardize its Hong Kong landing rights, which are guaranteed in the basic law that is to govern the territory after 1997. To protect its routes, Cathay has taken pains to be considered a Hong Kong, rather than foreign-owned, airline—even though Britain's Swire family controls it. In 1985, Cathay floated 25% of its stock in Hong Kong. To give it clout with Beijing, it sold an additional 12% to China International Trust & Investment Corp., an investment vehicle owned by the Chinese government.

HOMESICK? Staying in Hong Kong, however, means turning to extraordinary measures. After dozens of its computer programmers emigrated to Australia, for example, Cathay tracked several down and moved the work to them. It now employs 20 programmers in a Sydney office. Mechanics are a worse problem. As it is, there is a worldwide shortage of experienced jet-engine mechanics. So Cathay's maintenance subsidiary has had to recruit expatriates from as far away as Zimbabwe. It also has doubled the size of its mechanic training school, putting raw recruits through a four-year program. It's "a long, fairly expensive process," admits David M. Turnbull, head of the maintenance subsidiary.

Cathay is even betting that some of the workers will get homesick. The hope is that after they gain U. S., Canadian or Australian passports as an insurance policy, the carrier will be able to lure them back to Hong Kong. Cathay is exploring some enticements, such as ensuring that the employees won't lose retirement benefits during their absence. Another idea: letting key employees who leave continue their free-flying privileges, so that they can easily visit Hong Kong—and stay in touch with Cathay.

Cathay's best hope for keeping staff, however, is a smooth seven years until Britain relinquishes sovereignty to China. If stability prevails, or better yet, if Beijing becomes more liberal, Hong Kong and Cathay may thrive. On the other hand, another shock like last June's Tiananmen Square massacre could be disastrous. Cathay knows how to make its planes arrive on time. Stormy political weather, unfortunately, is beyond its control.

By Pete Engardio in Hong Kong

PRECIOUS COMMODITY: A CATHAY MECHANIC

CATHAY PACIFIC AT A GLANCE

PARENT Swire Pacific Ltd., Hong Kong, 27% controlled by Britain's Swire family

HOME BASE AND MAIN HUB Hong Kong

1990 REVENUES $2.5 billion

1990 OPERATING PROFITS $500 million

KEY DESTINATIONS Tokyo, Los Angeles, Vancouver, London

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COLLEGE FOOTBALL

BIG RED'S BIG GREEN MACHINE

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RABID IN RED: THE CORNHUSKERS HAVE SOLD OUT A RECORD 173 STRAIGHT GAMES

When the University of Nebraska Cornhuskers conducted their final workout prior to their Oct. 13 homecoming game, they had an unusual audience: their opponents. Most of the University of Missouri football squad gathered to watch what might be the nation's most successful college football team. Missouri is a respectable outfit: The Tigers beat Arizona State and lost to 10th-ranked Colorado only because game officials mistakenly gave the Buffaloes an extra chance to score. But the players watched the Huskers with awe. No wonder.

During the 1980s, Nebraska had an .873 winning percentage, the best of any major college. This year, the unbeaten Huskers are in the hunt for the national title. After crushing Missouri, 69-21, and the next Saturday demolishing Oklahoma State, 31-3, they're now ranked No. 4 in the Associated Press poll.

Those figures are music to fans' ears. But Nebraska Chancellor Martin A. Massengale looks at another set of numbers. The $12 million the Huskers bring in each year more than covers the team's $6.5 million annual budget. The surplus goes into money-losing sports such as gymnastics and swimming.

What makes this so remarkable is that Nebraska has won while running a comparatively clean program, unlike many other gridiron powerhouses. When the National Collegiate Athletic Assn. conducted one of its periodic investigations in 1986, it found only a few minor infractions at Nebraska. Credit goes in large measure to head coach Tom Osborne.

The Huskers coach has his peers' respect: They've named him Big Eight Coach of the Year four times. Says Iowa State coach Jim Walden: "Tom Osborne has to rank with the best coaches in the game today." But privately, rivals grouse that he schedules such nonconference patsies as 1990 opponents Oregon State and Northern Illinois.

STADIUM CITY. No one doubts Nebraska's financial prowess. Murray Sperber, author of *College Sports Inc.*, a new book on the economics of big-time university athletics (BW—Sept. 24), says that "almost all college sports programs lose money." He figures that only about 50 out of the 2,300 colleges involved in intercollegiate athletics break even or make money on sports. But Nebraska's athletic program does more than support itself: It's paying for most of a new, $15 million student recreation center.

Much of this success stems from ral fan support. Humorist Charlie Winkl author of the aptly titled *My Big R Obsession*, is a typical Huskers fan, o more so. He says that when he dies, wants his ashes sprinkled around Mer rial Stadium in Lincoln. Thousands other fans drive hundreds of miles to home games. By kickoff on Oct. they've transformed Memorial Stadi into the state's third-largest communi The crowd of 76,317, most dressed bright red, is the 173rd consecutive s out, extending an all-time NCAA recor

Fans do more than wear red. Th also give long green. The Touchdo Club has 2,700 members, all chipping at least $200. And the Husker Beef Cl with an additional 1,500 members, rais $350,000 a year and keeps the train table supplied with corn-fed beef. In donors contribute about $2 million a ye in cash to the athletic department. Th has enabled the football team to acqu facilities better than those of many p fessional teams. The Huskers have a million indoor practice field, luxuri red-carpeted locker rooms, and a million world-class weight room.

'REALITY.' Nebraska may be a state the-art football factory, but it still pects players to cram some learning der their helmets. Most believe they heading for the NFL, but "I try to g them a strong dose of reality," Osbo says. In fact, only three or four play make the pros each year. But about 7 of the seniors graduate within five ye of starting school. And Nebraska produced 30 Academic All-America since Osborne took over in 1972.

No one pretends that every player i serious scholar, and more than a players wouldn't be in college if th blocking and tackling were ignored. S says Jake Young, a finance major star center who won Academic American honors in 1989, "coach borne tells the players that if you fai compete in the classroom, you ca play. And he means it."

Nebraska's success story may be ha to copy. Chancellor Massengale belie the only way to address the financ problems faced by many college spo programs is to impose further cost-c ting steps. He backs proposed NCAA forms that would reduce both coach staffs and athletic scholarships. Th changes, which the NCAA will consider January, could wind up entrench powerhouses like the Huskers by m ing it harder for weak schools to attr talent. Though, as any lineman in fre man English will tell you, the "r trenched Huskers" is redundant.

By William C. Symonds in Lincoln, N

Who guarantees overnight air delivery by 10:30 a.m. to the most places coast to coast?

THE HERE-YOU-SEE-IT, THERE-YOU-DON'T RECESSION

Some areas are getting clobbered, while unemployment is actually declining in others

So far, the recession of 1990 is turning out to be more tornado than hurricane. It's certainly doing a lot of damage wherever it lands. But rather than leaving a wide swath of destruction, the downturn is hitting a city here and a region there, leaving most of the country relatively untouched.

Take job loss, the most painful part of any recession. New hiring has surely fallen off in recent months, especially for white-collar workers. In September, the national unemployment rate reached 5.7%, four-tenths of a point higher than a year ago. But most of the big layoffs in finance, computers, and aerospace have been concentrated in Southern California, New England, and New York City. Outside those places, only 24 cities have seen their unemployment rates rise by more than one percentage point over the past year (map).

BOUNCING BACK. Meanwhile, 32 cities are reporting unemployment rates more than one percentage point lower than a year ago. And just under half of the 268 metropolitan areas tracked by the Bureau of Labor Statistics report some decline in joblessness since last August. The BLS data lag one month behind the national data.

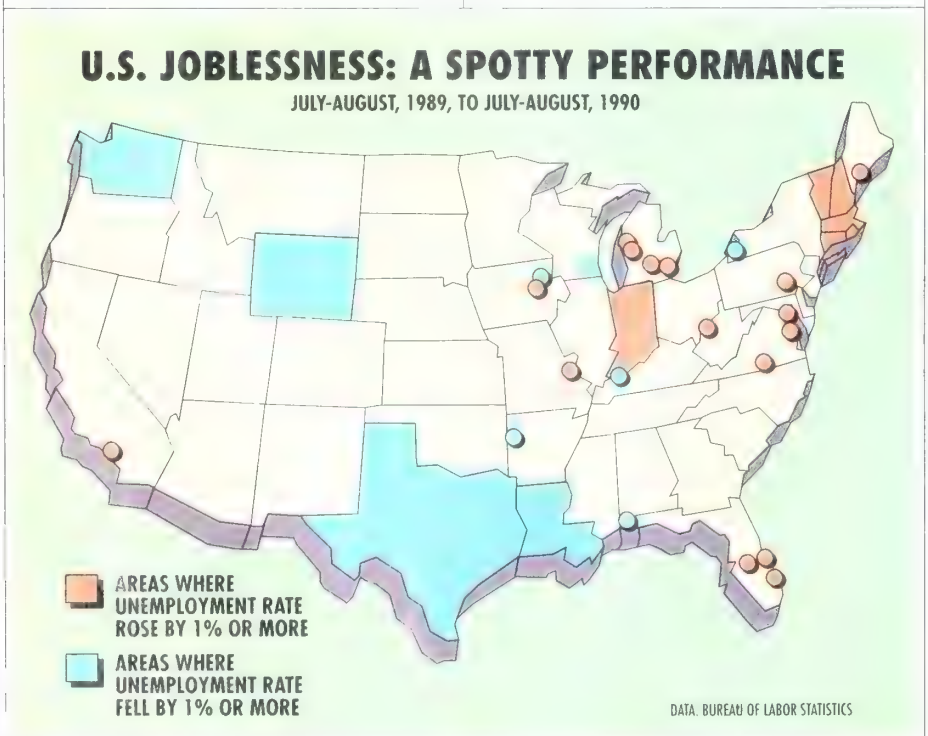
Some upbeat news is coming out of such spots as Texas and Louisiana, which are bouncing back from bad times in the oil patch now that energy prices have rebounded. Then there are regions such as the Pacific Northwest, which have been relatively strong for a couple of years now. But it's not simply higher oil prices and Boeing Co. that are keeping local economies going. Pockets of strength are popping up in unexpected places. One example: Buffalo. During most of the 1980s, Buffalo, like other aging industrial cities, struggled to deal with the death or flight of its manufacturing base. But Buffalo seems to have turned the corner, and its economy is reviving. The unemployment rate dropped from 5.7% in 1989 to 4.6% today. The September survey of purchasing managers of Buffalo-area companies reported "drastic improvements in production and high increases in new orders." And in the face of the national recessi notes Randall Brown, vice-president business development at the city Chamber of Commerce, "Buffalo h been holding firm."

Much of the city's economic buoyan can be traced to the free-trade agr ment with Canada, which took effect the beginning of 1989. Faced with hi operating costs in Ontario, Canad companies with their eyes on U. S. m kets have been investing across the b der. By Brown's count, he has helped least 90 Canadian companies establ facilities in Buffalo. And the benef come not just from the additional jo says Brown, but also from the psyc logical boost of not being tied solely the staggering U. S. economy.

Buffalo is not alone in its disregard the nationwide downturn. Judging the labor market, the recession has far missed much of the Midwest—m notably Ohio, where unemployment dipping below last year's levels. A Great Plains states such as Nebras North Dakota, South Dakota, and Io continue to do well. Boosted by a go harvest and growth in service industr such as telemarketing and insuran the unemployment rate in Nebraska h dropped from 3% to 2.3% over the p year. "We have more jobs in Nebras than we can find workers for," boa Brad Korell, president of the Natio Bank of Commerce in Lincoln. A strong demand is pushing up wages entry-level jobs, notes John Austin, economist at the Bureau of Business search at the University of Nebraska

NO BOTTOM. Good news in most of country, however, means more pain the hardest-hit areas. Nationwide e ployment in the finance sector fell 3,000 jobs in August, out of a total almost 7 million. But the entire decl was concentrated in just two stat New York and Massachusetts. Inde in the past year, these two recession spots have lost about 12,000 finance-s tor jobs, even while the rest of the co try was adding 54,000 jobs.

As a result, workers who are laid in these pockets of weakness do m worse than job-losers elsewhere. In m



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Economics

of the country, reports Drake Be Morin Inc., an executive outplacem firm, out-of-work executives and man ers can still expect to find new positi paying higher salaries. The two exc tions are the Northeast and the Sou west, including Los Angeles, where employment has soared recently.

The stricken regions still have not b tomed out. For example, in just the l year, unemployment in Fall River, Ma skyrocketed from 5.4% to 9.3%. Appa makers, who provide 40% of the cit manufacturing jobs, are being squeez by the reluctance of financially strapp local banks to lend working capital. "E erybody's laying off five or six peopl says Paul Vigeant, executive vice-pr dent of Jobs for Fall River Inc., a n profit lender to small businesses.

Newly hit areas may also not rev easily. South Florida is experiencing first economic slowdown in most p ple's memories. The volume of he wanted ads in Miami newspapers h fallen by 31% since last year—the la est drop in any city outside New E gland. And several cities in the Mia area reported big unemployment jum in August. In past years, the win tourist season has eased unemploym in popular spots such as West Pa Beach. But as Americans tighten th belts, that might not happen this ye "We're approaching this business rec sion in a much more vulnerable stat says Manuel Lasaga, chief economist Southeast Bank.

BITTER MEMORIES. But all parts of country do share one thing: a deep se of pessimism. Help-wanted advertisi a sign of hiring plans, has shrunk alm everywhere, even in places where j lessness has not been increasing. Si last year, reports the Conference Boa the volume of help-wanted ads dropped by 23% in New York City a 22% in Los Angeles, which is no s prise. But it has gone down by at le as much in Cleveland and Atlan where the unemployment rate has be stable. And though the oil-price rise brought new prosperity to Texas, D las-based businesses are still plac fewer want ads than a year ago.

This caution may be an aftereffect the early 1980s, when all of the ar now doing well—the Midwest, the Gr Plains, and the oil patch—were cl bered early and hard by rolling rec sions. The recent memory of hard tim has left employers wary. But unless recession lasts for a long time, people these regions may have a brighter ture than they've let themselves belie

By Michael J. Mandel in New York, w Geoffrey L. Smith in Boston and Irene cio in Miami

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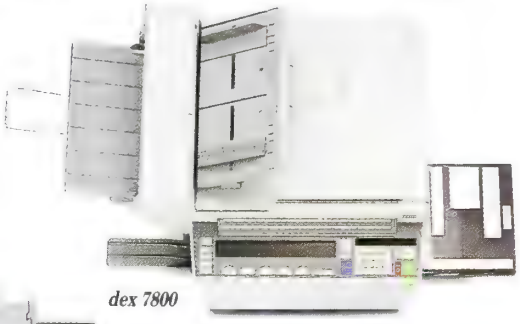

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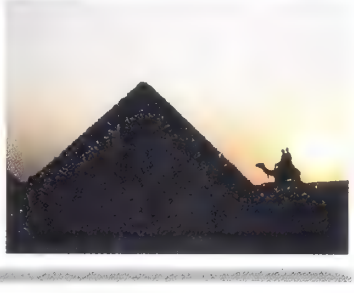

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VERNICK (RIGHT) AND HALFWAY HOUSE CLIENTS: A ONE-THIRD FUNDING CUT

THE WOLF COMES KNOCKING AT NONPROFIT DOORS

rivate social service providers are feeling the chill wind of recession

Susan Jones thought she was in the clear. A Boston-area single mother who spent three years on welfare, nes, 31, was proud of her new life as administrative assistant at a real es- te office. But her independence is now reatened—and Massachusetts' reces- on is to blame.

Jones learned clerical skills in an am- tious state training program that has lped thousands of others get off the le since 1983. But Massachusetts' rapped state government has slashed nding for a range of human services, cluding the child care that enables low- come parents to work. Since Jones's ate day-care voucher expired in early ctober, a neighbor has been watching r son, Jamaal, 8, after school. At $225 month, however, the cost eats up a ge chunk of Jones's $850 take-home y. "I can't afford it, but I'll do any- ing to stay off welfare," she says. "We'll see how long I can last."

Recession is wreaking havoc not only on welfare reform efforts but also on the nonprofit social service agencies that help poor people cope. In Massachusetts and elsewhere, fiscal strain means crisis for such agencies, which typically draw 30% to 60% of their budgets from state contracts to provide vital social services (table, page 98). Only a few states have cut human services funding so far. But many plan flat budgets. The betting says worse is to come.

NEW ALLIES. Belt-tightening is forcing dramatic change in the way agencies operate. They are shrinking or eliminating programs—most often those for children, the elderly, disabled, or mentally ill. They are begging funds from corporations and charities as never before. Some are seeking alliances with larger groups. Others, after years of pay freezes, are losing employees in droves.

For many in the field, all this evokes a sense of deja vu. A decade ago, social service agencies weathered massive cuts by the Reagan Administration. Eventually, some federal funding was restored. In employment training and child care, state and private money largely made up the difference, but low-income housing and mental health programs never caught up to the levels of the 1970s. It's hatchet time again. States that spent most in the 1980s are slashing deepest.

Exhibit A is Massachusetts. A decade of economic buoyancy drove spending on human services up 80%. But last year, tax revenues dropped 3.3%, and nonprofits providing day care, aid to battered women, rape counseling, job training, youth programs, and services for immigrants have seen their budgets cut. Now, the Dukakis Administration has announced further 7% reductions.

At Greater Boston Legal Services,

Do we really want to return to those good, old-fashioned days before plastics?

America is coping with the problem of too much rbage and too few places to put it.

Our nation is currently generating about 160 lion tons of garbage a year. Our landfills have decreased m 18,500 to 6,000 during the past 10 years. About 00 more will close within the next five years.

Some people believe that banning plastics and ostituting other materials will solve the problem. We n't think that they have all the facts.

If plastics were banned, we'd lose safety and nvenience features such as closures for foods and edicines, shatter-resistant bottles, freezer-to-microwave ckages, and wrappers that preserve food freshness.

A 1987 study shows that if paper and other ckaging materials were to replace plastics, the energy eded to produce the packaging would double, the ight of packaging would increase four-fold, the pack- ng cost would double, and the volume of waste lected would increase about 2½ times.

Myth vs. Reality.

The thinking behind a ban on plastics is based a number of myths.

Myth #1 is that plastics make up a major part our solid waste. Fact: according to a recent study, stics make up about 18% of the volume of solid waste our landfills; paper and paperboard about 38%; metals, %; glass, 2% and other wastes, 28%.

Myth #2 is that paper and other products com- nly considered biodegradable will decompose in ndfill, so it takes longer to fill up. Fact: recent excava- ns of some landfills have turned up newspapers ied 40 years ago—still perfectly readable.

Myth #3 is that plastics are not recyclable. Fact: stics are among the easiest materials to recycle. 20% of all plastic soft drink bottles were recycled in 1987.

Recycling takes plastic items destined for disposal and turns them into useful new products. It can turn plastics into a "natural resource."

Recycling is growing.

At Amoco Chemical, we believe the solution must integrate recycling, source reduction, environmentally secure landfills and waste-to-energy incineration. Everything recyclable should be recycled—yard waste, paper, glass, metal and plastics.

Today, almost 200 companies are recycling millions of used plastic containers into everything from fiberfill for ski parkas to carpet yarn to "plastic lumber."

How Amoco Chemical is helping.

Amoco Chemical is sponsoring a program in New York demonstrating that used, polystyrene foam food service containers from schools and restaurants can be recycled into insulation board for commercial construction, cafeteria trays and office products.

We're participating in a consortium with other major plastics manufacturers involved in the construction of regional polystyrene recycling plants.

We're encouraging the start up of new recycling efforts, helping to find better ways to collect and sort recyclables, and supporting efforts to create markets for products made from recycled plastics.

At Amoco Chemical, we believe that recycling can play a major role in helping America solve its solid waste problem. Before we decide to return to the past, let's remember that the good old days were sometimes the not-so-good old days.

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which provides free social service advocacy and legal help, crisis is already routine. Funding cuts have forced GBLS to slash programs and staff and turn away hundreds of would-be clients in recent months. Yet the agency is seeing 15% more people than last year as the ranks of the poor grow.

In GBLS' crowded waiting room is Doris Rivera, 20, a Puerto Rican immigrant with three children and a fourth on the way. Homeless since February, Rivera's family spends nights on the floors of friends' apartments and days roaming the streets, but the state is issuing no new rent subsidies. Says GBLS director Peter Anderson: "We're losing ground."

In other states, the number and quality of programs are declining, too. In Philadelphia, The Bridge at Fox Chase has trimmed its long-term residential treatment list from 60 to 48 teenage drug addicts. California's planned cuts in mental health spending will cost Pasadena's Pacific Clinics $2 million in aid. That could force it to deny treatment to 2,500 mentally ill clients. At Baker Places, a San Francisco program for substance abusers and the mentally ill, Executive Director Jonathon Vernick expects a 33% cut in his $1.5 million budget next year.

LITTLE FLUFF. For want of staff, the child protective unit of the Texas Human Services Dept. is not opening new cases. That's why seven-year-old "Tommy Morgan," the pseudonym for a battered, abandoned child with a history of torturing animals, abusing his sister, and threatening to hurt himself, was sent home after 30 days at a state crisis unit. "He needs residential treatment, but finding a bed was way out of the question," says Christopher Howard at the Mental Health Assn. of Greater Dallas. Tommy's adoptive parents are destitute and have no health insurance.

Reductions in service are just the beginning. Still to come are more fundamental changes in the way agencies operate. Clearly, nonprofits will have to make thin budgets go even further. "There's not a lot of fluff here. We are stretching and stretching," grumbles Anne Menard, executive director of the Connecticut Coalition on Domestic Violence. Independent Sector, a Washington-based association of philanthropic and nonprofit agencies, says that a typical nonprofit today has cash to cover just three days of expenses, down from three months in 1977.

But agencies have little choice. "The sector will become even more cost-conscious," predicts John M. Jeffries, a management expert at New York's New School for Social Research. "It will have to decide which activities it can engage in efficiently." Critics say states also must find better ways to measure quality its nonprofit contractors del

In California and Iowa, some la nonprofits are already subcontrac services to smaller agencies while tralizing administration and fund ing. Elsewhere, merger talk is rife. cost-cutting solutions may create i ciencies. Some programs work best large scale. "Shrinking resources s down our goals," says Patrick E. Cl of Boston-based Community Buil which develops and finances low-in housing. "Instead of doing units, I'll do 40." But legal finance costs can't be s down in proportion, he say

TIN CUPS. To counter state agencies are seeking sources of funds. The Birn ham Group, a diversified man service agency in Con cut, took $15,000 in profits its thrift shop this year to support a domestic viol shelter. Center House, an nization serving Boston's tally ill, rents out its offic night to another group uses the space as an overn shelter for 70 homeless pe Another Boston mental h agency, the Douglas A. T Clinic, has begun offering vices on a fee basis. This proach, some say, could mately cut service to the p

Above all, nonprofits are ing their tin cups to the pr sector. Philanthropy execu nationwide report that g applications from human vice agencies have soared i past year. That means f competition for corporate foundation funds at a when many of the big g are cutting back, too. F Place, a Dallas network of ters for battered women their children, is asking pr sources to replace the $40,0 20% of its budget—in funds it expects to lose year. "But they can only much, because everyone is ing them for money," say rector Diane McGauley.

Corporate giving to no fits rose 5% in 1989, say American Association of F Raising Counsel. This Champion International and Bank of New Eng Corp. are among the big d giving less. The Boston Bank has lost funding fro of the 22 corporations and

WHERE THE PAIN IS WORST

In more than half the 50 states, sluggish tax revenues are leading to cuts in spending on social services provided by private, nonprofit agencies. Here's where nonprofits are fighting the toughest battles:

CALIFORNIA

▶ Nearly $1 billion in social service cuts this year kill cost-of-living increases for welfare clients. Sharp drop in funds to mental illness and family services planned. AIDS agencies face 15% cut

CONNECTICUT

▶ After funding most human services at rates below inflation for several years, faces budget gap next year of up to $1.5 billion—while welfare caseload up 20%. Programs for child care, disabled, and elderly most vulnerable

GEORGIA

▶ Human resources department ordered to slash $29 million from this year's budget, affecting community mental health providers, drug and alcohol abuse services, housing initiatives, AIDS education efforts

MASSACHUSETTS

▶ Last year's budget closed programs for immigrants and the mentally ill, axed thousands of day care slots. This year, further cuts of $729 million sharply curtailed rent subsidies, nearly dismantled Office for Children

NEW YORK

▶ Amid homeless crisis, current budget scales back low-income housing rehabilitation efforts and funding for domestic-violence shelters, while slashing funds to residential and other programs for the mentally ill by $8 million. Public assistance held flat. New taxes helped boost programs for AIDS and substance abuse. Deeper cuts possible next year under anticipated $2 billion budget deficit

TEXAS

▶ Emergency transfers and loans bridged $48 million shortfall at Human Services Dept., but a looming $350 million deficit makes cuts more likely—especially for programs serving children, elderly, and disabled. State ranks last in social welfare spending

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LINCOLN CONTINENTA	4 YEARS/ 50,000 Mi.	4 YEARS/ 50,000 Mi.	4 YEARS/ 50,000 Mi.	6 YEARS/ 100,000 Mi.
LEXUS LS 400	4 YEARS/ 50,000 Mi.	4 YEARS/ 50,000 Mi.	6 YEARS/ 70,000 Mi.	6 YEARS/ UNLIMITED
ROLLS ROYCE CORNICHE	3 YEARS/ UNLIMITED	3 YEARS/ UNLIMITED	3 YEARS/ UNLIMITED	3 YEARS/ UNLIMITED
MERCEDES 560 SEL	4 YEARS/ 50,000 Mi.	4 YEARS/ 50,000 Mi	4 YEARS/ 50,000 Mi.	4 YEARS/ 50,000 Mi.

dations that donated last year. And local United Ways, often last resorts for nonprofits, face leaner times (box).

Even in good times, most private donors prefer to shell out for identifiable projects or pay startup costs rather than fund ongoing operations. Some foundations are bending the rules to fund a few specific agencies in crisis, but reluctantly. "We can't replace the government," says Ira A. Jackson, vice-president for external affairs at Bank of Boston Corp. "It's not a proper role for us to pursue or for nonprofits to expect us to play."

Thus, most nonprofits won't be able to replace lost state funds with private money. It may be, too, that private donors, given rising demand for money, will more often ask for quid pro quos: public relations exposure, say. That's a hard prospect for small agencies that lack much marketing clout.

FIRE FIGHTING. Foundations and corporations are all the more important because they tend to fund the sort of prevention-oriented services that lose out in a government-spending triage. Fiscally strained states put out fires first, setting up homeless shelters or soup kitchens, rather than spending money to keep people functioning in the system. This choice, human service advocates say, will only create bigger, more cos problems ahead.

That is the fear at Baker Places San Francisco. Prospective funding c would force Executive Director Vern to shutter one of five halfway hou and close an independent live-in p gram. "Ultimately," he argues, "yo see a lot more people on the street, a more deaths, a lot more AIDS cases." such grim predictions come to pass, p ny-wise state funding cuts will pr costly indeed.

By Keith H. Hammonds in Boston, w Emily A. Benedek in Dallas, Barbara C son in Hartford, and bureau reports

EVEN THE UNITED WAY IS STRUGGLING TO MAKE ENDS MEET

Nothing comes easy these days for the United Way of Columbia-Willamette. Once, it could count on ever-growing donations from a broad base of big corporate employers in metropolitan Portland, Ore. But that base shrunk in the 1980s, with the departure of Georgia-Pacific Corp. and high-tech layoffs by Tektronix Inc. and other companies. Competition from other big charities for corporate dollars is tougher, too.

Now, halfway through their annual drive, Portland fund-raisers hope they can match last year's kitty of $19.5 million—a total itself short of its target by $1 million. And "the gap is growing," says York Haines, the local United Way spokesman. Yet funding requests from United Way member agencies are up 10%. "When you lose share in major corporations, you have to change the way you do things," says Haines. "We haven't made that transition yet."

For many nonprofit human-services agencies, from Boys Clubs to immigrant centers, the local United Way always has been that sure thing, a steady flow of largess in rough economic times. Now, even the giant is feeling the pinch. In Miami, Boston, and other cities, United Way chapters are suffering as their bread-and-butter donors, big corporations and their employees, cut back. And member agencies, crippled by state budget cuts, are raising their grant requests.

SHIFTING FUNDS. Austerity is an unaccustomed burden for the nation's largest charity. Its 2,300-odd affiliated chapters raised $3 billion in 1989, a purse that had increased throughout the decade—although other charitable giving grew faster (chart). Most revenues come from local employers, who deduct donations from workers' paychecks. So the United Ways shared both in the long economic expansion and in the healthy increase in individual charity that dominated the 1980s.

But regional recessions are forcing wrenching change. Miami's chapter is deemphasizing mental health and drug rehabilitation programs in favor of preventive works like job training and drug abuse education. The Boston United Way, facing a $2 million shortfall, has drawn heavily on its reserve fund and has targeted 13 community priorities to support.

As a result, Boston's United Way will give the local Red Cross chapt $270,000 less this year than last. Th prospect has set the Red Cross scra bling to sell real estate in a down ma ket and to drum up new donors rath than cut such programs as aid to disa ter victims and AIDS education. B Philip Schuyler, planning officer f the American Red Cross of Mass chusetts Bay, still foresees $100,000 deficit: "Demand f these services is going sky high.

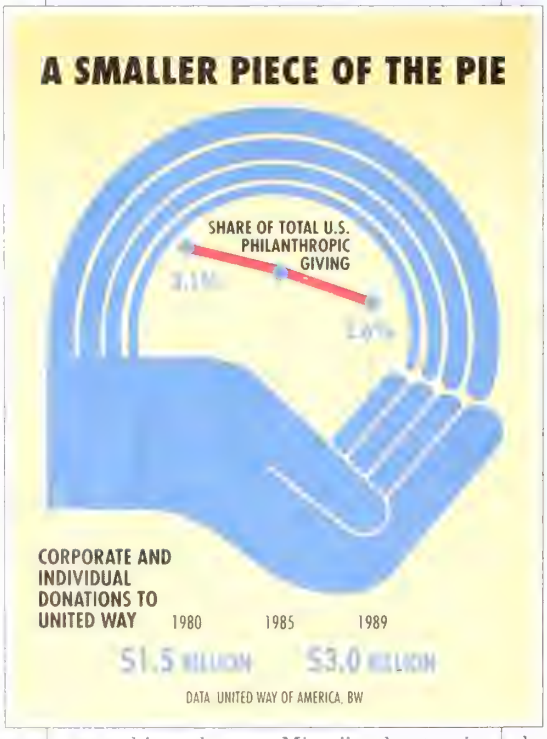
Philadelphia's United Way, wi a flat budget, has maintained su port for local Girl Scouts, includi an effort to recruit scouts fro homeless shelters. "We're tryi to find a balance. It's a struggle says Christine James-Brown, vi president for fund distribution.

URGENT NEED. United Ways are thinking fund-raising strategie Chapters in Boston, Los Angele and other cities will allow indivi ual donors to specify activities th want their money to fund. Popul among donors, this limits chapte ability to set priorities.

United Way of Central Maryla held public meetings last year gauge the community's givi preferences. Then, it established series of public-private partne ships to finance them. And in t Detroit area, where auto make account for close to 40% of a fl budget, the local United Way is beg ning to target small businesses, a t tic carrying higher costs.

Whatever the strategy, the theme clear: Keen competition and urge need cry out for creativity. For an ganization that has thrived on automa ic generosity, that is a challenge.

By Keith H. Hammonds in Bost with Morton D. Sosland in Philadelph



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FOR NOEL ZELLER, GOOD DESIGN IS JUST THE BEGINNING

Without clever packaging and strategic pricing, even a brilliant product can die

Zelco's "itty bitty" book light was a conceptual breakthrough: The shirt-pocket-size fluorescent lantern won accolades from the Museum of Modern Art. Its left-handed calculator was an ergonomic masterpiece. And its microhalogen lamp was a major technological innovation.

In the pantheon of innovative products known for design excellence, an uncommonly large number of them have emerged from this small, quiet, private company headquartered in Mt. Vernon, a most unfashionable suburb of New York City just north of the Bronx.

With worldwide sales of roughly $20 million, Zelco Industries Inc. isn't about to go head-to-head with Sony or Philips or Braun. Yet the company's impact goes far beyond its revenue stream. Zelco has discovered how to successfully commercialize design—something that continues to elude most American corporations.

'EYE-CATCHING.' If there is one lesson Zelco has to teach, it's this: Design starts with the product, but it doesn't stop there. A touch of inspiration, a bit of new technology, and a dash of great styling are necessary to build successful new products. But a corporate design strategy that stops with the notion that "the product speaks for itself" may find its sales mute.

Many product designers may prefer to think of themselves as artists, aloof from gritty commerce. But Zelco has shown that design flourishes best in the larger world of business. Even well-designed products succeed only with the right pricing and marketing. "Zelco's products are innovative and functional, and the packaging designs are eye-catching," says Del Hernandez, the electronics buyer for all of R. H. Macy & Co.'s California department stores. "They show the products off very well and explain their functions."

Saks Fifth Avenue, Macy's, Bloomingdale's, and Neiman Marcus agree. New York-based Hoffritz For Cutlery Inc. sells practically the entire line of Zelco products. Eddie Bauer Inc. of Redmond, Wash., and Freeport (Me.)-based L. L. Bean Inc. sell Zelco products under private labels.

Noel E. Zeller, 54, calls his use of design "presentation." Says Zeller: "W always asking ourselves: 'Does the p uct present itself to the user? Is product designed to ergonomically i act easily with the person? And does packaging and graphics further the planation, the presentation?' "

Zeller learned most this through experie After graduating f Miami University, worked at lighter m Ronson Corp., spen most of his time as a s manager. By the n 1970s, he was tired working in a big corpo setting and set up Z as a family busin owned 50-50 with his w Adele. At first, it imp ed cheap flashlights sold them through shops. Nothing fancy.

Eager to expand product line, Zeller an eye out for new th to sell. At a local h ware store, he stoppe front of a big camper tern and had an epiph of sorts. "I felt that i went the opposite wa the market and w small like the Japan we would find a w new niche," recalls Ze A miniature lantern travelers—for the glove compartment, bedside tables—m really sell, he thought

Zeller quickly dis ered that there was a son why lanterns wer large. Every fluores lamp needs a transfo to get it fired up, and conventi transformers were no smaller than a arette pack. So Zeller went on an i national transformer safari that fi bagged a handful of miniature t formers at an electronics trade sho Osaka. He jumped on a plane to H Kong, and in two weeks, his manu

ZELCO'S NO-HANDS BINOCULARS, EDDY FLEXIBLE LAMP, THUMPER ALARM CLOCK, LEFT-HANDED CALCULATOR, AND SHIRT POCKET FLUORESCENT LANTERN

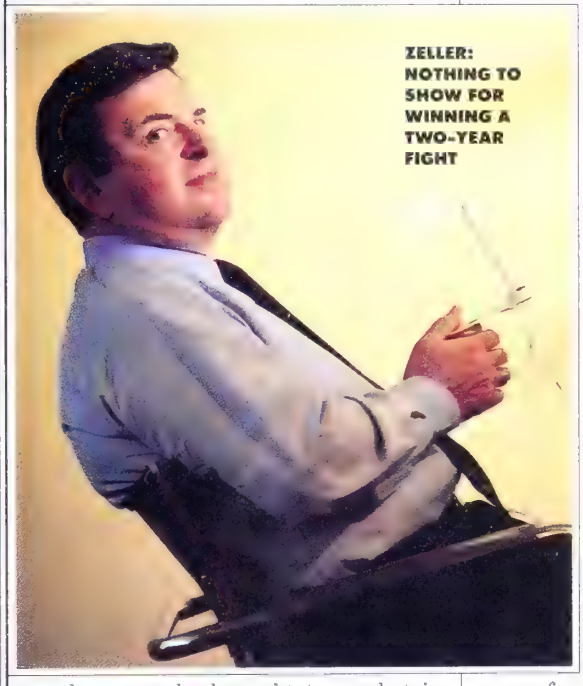
had assembled a fluorescent lan-
powered by four AA batteries.
en so, the lantern was simply a
version of its clunky, ordinary an-
r. Back in New York, Zeller called
ct designer Ben Zapolski. Zapolski
worked for Raymond Loewy, who
ered American industrial design in
930s and '40s. Zapolski was in his
0s and semiretired, but he still had
active clients. "I went to a trade
at [New York's] Javits Center and
ed by Zelco's display booth," says
ski. "I found that their products
the kinds I liked to design. I gave
my card."
ler called and pleaded: "Ben, I need
help. But I can't really pay you
much." Zapolski told Zeller he
d charge him only an hourly rate. If
ew product sold, he wanted to be
n a full-time retainer. "You got it,"
Zeller. At this point, all Zeller want-
as a decent product that looked
Nothing fancy.

A CALLING. Eight months later, the
Pocket Fluorescent Lantern went
le in the U. S. Within weeks, New
s Museum of Modern Art called to
eller that it wanted the product for
ermanent design collection. Zeller
surprised—and disappointed. "To
ou the truth, I never told this to the
um, but I couldn't care less for
ds then," he says. "We were look-
or orders—and this was no order."
Zeller now credits the MOMA publici-
ith spurring orders: Zelco sold
) lanterns within a year.
at taught Zeller that good design
selling power. It also taught him
echnology makes innovative design
ble. But the lantern was hardly a
buster. It was the "itty bitty" book
that would soon earn him his de-
in street-smart commercial design.
e inspiration: Zeller liked reading at
. His wife, Adele, didn't. So why
lamp just big enough for a book?
first there had to be light. But
couldn't interest General Electric
or other bulbmakers in supplying
vith a bright but tiny bulb. "In their
ess, 50,000 is nothing," he says.
ce again, Zeller turned to Japan for
ology. He found it at a small fac-
owned by Panasonic Co., a subsid-
of electronics giant Matsushita
ric Industrial Co. The Japanese cre-
a bulb out of lead crystal, which
't cast yellowish circles the way
does. And they replaced the vacu-
ıside the bulb with argon and other
. That lowered the temperature of
lament and extended the life of the
to about 50 hours—10 times that of
verage flashlight battery. Most im-
nt, the Japanese agreed to produce
all lot of 50,000 bulbs.
ler, Zapolski (now on retainer to

DESIGN PATENTS: HOW THE COURTS HELP THE COPYCATS

Zelco was almost knocked off by knockoffs. So popular was its "itty bitty" book light with bedtime readers that within a year of being introduced in 1982, Korean, Taiwanese, German, Italian, Australian, and domestic competitors were selling copies in the U. S. market. Not only was the light copied, but—in a bow to the company's overall design strategy—so was the book-like packaging.

Zelco isn't the only company to fall victim to its own innovation. With advanced technology, rivals can copy a newly designed plastic part—down to a fingerprint on the surface—in a couple of hours. Knockoffs of small consumer products can be brought to market in less than a month.



ZELLER: NOTHING TO SHOW FOR WINNING A TWO-YEAR FIGHT

With that kind of turnaround, high-tech piracy can destroy any incentive for innovation—particularly among smaller companies. When Mag Instrument Inc. introduced its Mag-Lite and Mini Maglite flashlights in the late '70s, copies quickly flooded the market.

Small companies aren't the only ones that take a beating. Knockoffs cost U. S. companies up to $40 billion in lost sales, royalties, and licensing fees every year, according to the U. S. Trade Representative's office. That's why corporations as varied as Caterpillar, Herman Miller, Maytag, and General Motors are lobbying Congress for the Industrial Design Anti-Piracy Act, which would provide up to 10 years of copyright-like protection to industrial-product designs. But the prospects for action are dim.

Why? Unlike technology patents, which traditionally have the sympathy of the courts, design patents have not fared well. Current U. S. design-patent law is based on 19th-century legislation that views design as ornamentation. It isn't perceived in the larger, more functional context of promoting ease of use or manufacturing efficiency.

PYRRHIC VICTORY. The "itty bitty" book light's saga underscores the lack of effective design protection. Zelco launched a number of lawsuits against companies, alleging that they had copied its innovative product. Nearly all the cases were settled out of court, and royalties were paid to Zelco without any company admitting liability.

Zelco found that U. S. judges in particular viewed their efforts as anticompetitive and an infringement of consumers' rights. "What is an intellectual-property issue for designers and American manufacturers is perceived in Congress and in the courts as a consumer issue," says William Morin, director of the National Association of Manufacturers' Council on High Technology. Chain stores that sell consumer products tend to agree with the courts' view.

Zelco also found that the legal system eats up precious time—sometimes two years for a ruling. Meanwhile, competitors keep producing knockoffs. And when Zelco finally won in court against one, it declared bankruptcy—leaving Zelco empty-handed. After two years and $1 million in legal fees, all Zelco had to show for its fight was a sharp decline in sales.

It's entirely possible that not all the companies Zelco sued were deliberately copying its products. But like many other U. S. companies in the same situation, Zelco had to resort to price-cutting to save its innovation. It won back most of the market for the "itty bitty," but the victory was costly. Zelco's profit margins on its breakthrough declined—so there's that much less to invest in designing new products.

By Bruce Nussbaum in New York

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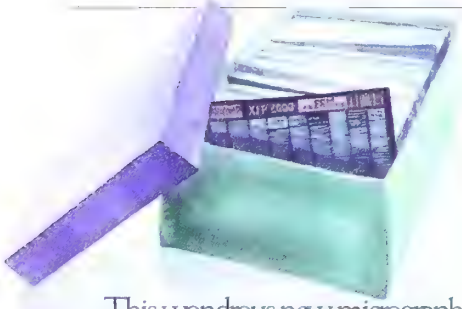

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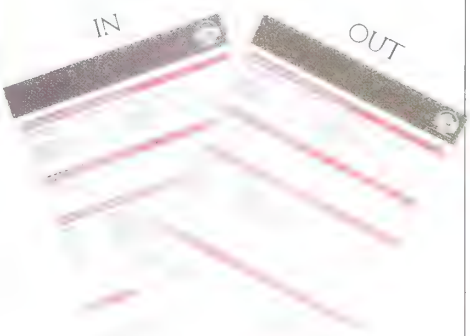

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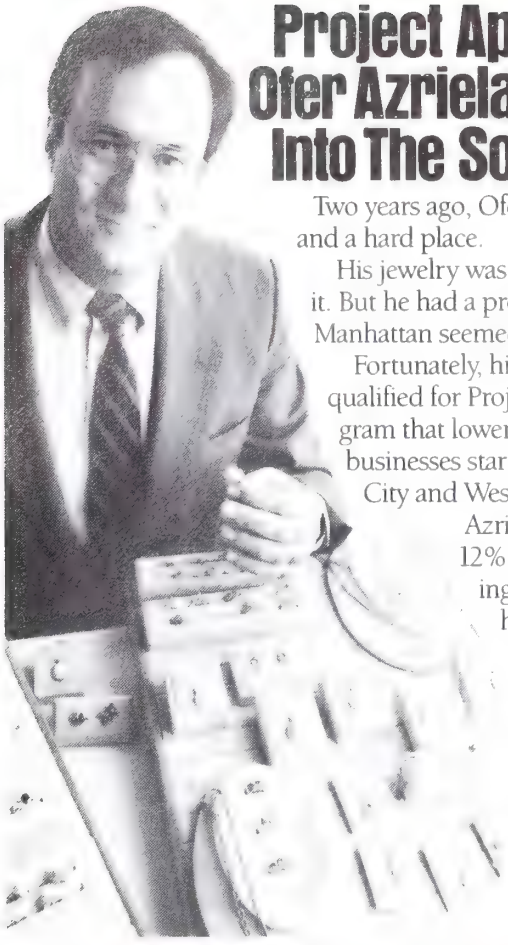

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Zelco), and a staff engineer then we work on a design. The first pass w flexible metal gooseneck on a clothespin that attached to a boo looked too "industrial." Vice-Pres Adele Zeller hated it. "We wanted look a little whimsical, be lightwe and go flat on a book," she says.

The next design clicked. A big p clip replaced the clothespin. And si didn't have a mechanical spring m nism, it would be easier and cheap manufacture. The gooseneck was placed by a tiny arm. Now, they ha product design. And this time, Z would follow up with shrewd marke

He gave Fabien Melgar a call. Me a package designer, had worked fo velor. Melgar came up with a h book-shaped box to hold the light also had a name for the product "itty bitty" book light.

Noel and Adele Zeller fought ove name for a week. Adele loved it. " can you forget the name 'itty bit she said. "It was something smal friendly." Noel thought it was frivo But Adele brought him around.

KNOCKED OFF. The "itty bitty" book was a wild success. Zelco's sales zo from $2.5 million in 1982 to $10 mill 1983. And with the product's 70% margin, cash flow was enormous. book light could have been an eve ger financial success if not for t imitators Zeller says have knocke his design (page 105).

The "itty bitty" book light's su was built on design. Its survival, h er, was determined by price. The or book light retailed for $30 and came a rechargeable battery pack, AC ad and spare bulb. Then, Zelco brough an "Abridged Edition" containing the adapter for $20—the price o knockoffs. Next came a "paper version containing just the battery for $15. By the beginning of 1989, had taken back 80% of the book market, up from a low of 30%. C million Zelco book lights have bee to date—30% of them in Japan, Eu and Canada.

The "itty bitty" book light pr Noel Zeller a final lesson. "The ma Zelco is Noel's understanding tha whole presentation of the product i ical," says Peter Lawrence, presid the Corporate Design Foundation, a profit organization that works t prove the quality of design educat business schools. "There are ma amples of a well-designed produc didn't sell well. The companies did their job. They thought the pr would sell itself. That's not enc Ask Noel and Adele Zeller.

By Bruce Nussbaum in Mt. V

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TICS

ES: TAKING ISSUE WITH THE HIGH COST AND LOW-DOWN TACTICS OF MODERN CAMPAIGNS

I FLORIDA, WALKIN' LAWTON S SUDDENLY IN A RACE

rtinez' big-money blitz has put him neck-and-neck with Chiles

A minivan pulls up to the Palm Beach school-administration building and out jumps Lawton Chiles, Democratic candidate for gov- r and Florida icon. He darts inside a handful of parents and students a long talk. Even though he's run- neck-and-neck with Governor Bob tinez, Chiles doesn't give a speech, no one has called in the TV cameras. e hours later, Chiles slips away.

iat same week, Martinez briefed re- ers in three cities on his new eco- ic-development white paper. Then, borrowed Learjet got him back to ihassee in time for a late-afternoon ption for elderly activists. If you ed the news reports of his most re- fly-around, you could catch his slick ds just about any time.

ie stakes in Florida are huge: The growing state will gain four House s next year, and the gov- r will have a big say in the political map is re- n. But the contest is less ash of ideology than of . Chiles has taken as his issue the high cost and lown tactics of modern paigns. His "uncampaign" t accept political-action nittee donations or any ribution of more than $100. And he has resisted negative ads.

Martinez, by contrast, isn't shy about spending big. He's buying saturation media and expensive polls to track voters' day-to-day shifts. It seems to be working. Martinez, who once looked like a goner, has closed the gap: An Oct. 15 Mason-Dixon Florida Poll showed him leading 47% to 46%, and he appears to have the momentum as Election Day nears. "Some people have spent their careers underestimating me," says Martinez. "I'm very pleased with our ability to play catch-up ball."

Indeed, the catch-up is remarkable. Last year, his approval rating plunged to 18%. Elected on a no-tax pledge, Martinez backed a controversial tax on services, then was forced to support its repeal. A year ago, he was embarrassed when a special session of the legislature killed his proposed abortion restrictions.

But while Democrats chuckled, the governor focused on such basic voter concerns as crime and drugs. Martinez signed more than 90 death warrants and doubled prison space. In August, he began airing an ad that campaign manager J. C. "Mac" Stipanovich calls "the watershed moment."

MARTINEZ: SLICK ADS AND LEARJETS

The spot features the governor waxing sentimental about the five generations of his family living in Tampa. Then, he admits to mistakes and vows to continue learning. "It's a political Rorschach test," says Mason-Dixon pollster Robert Joffee. "You fill in the blank with whatever mistake you think he has made. Then, you forgive him for it."

HOMESPUN. Chiles is running his campaign off a much older script—one the former senator wrote while he roamed the state as "Walkin' Lawton." His ads look homespun, with an 800 number so viewers can phone in pledges. Both candidates support capital punishment, but Chiles doesn't like to talk about it. "I'm going to sign death warrants," he says. "But I'm not going to brag about them."

Now Chiles is mired in a dead heat. When he decided to end a two-year political retirement in May, polls showed him leading both Representative Bill Nelson in the primary and Martinez in the general. But Nelson ran a much more effective campaign than pundits predicted. Although he was handily beaten, he planted doubts about Chiles's health and integrity by citing his rival's use of antidepressant drugs and questionable bank loans for Chiles family members. That spared Martinez from having to do the campaign dirty work.

After the September primary, polls showed Chiles with a slim lead, which Martinez has since erased. Now, Chiles may be tinkering with his grand experiment. In mid-October, he started running a mildly negative ad charging Martinez with mismanagement. But he still won't go for the jugular. Although polls have shown that about half of Martinez' supporters disagree with his strong antiabortion stand, Chiles still refuses to make abortion a campaign issue. "I don't feel comfortable exploiting that," he says. "It's too personal."

The race may be the Democrats' last chance to keep the state from slipping out of their grasp. Until the 1970s, Florida was a one-party state. Even Martinez was a Democrat until 1984. But the GOP now holds one Senate seat and an 11-8 edge in the House. A Martinez win could easily bring a Republican majority to the state senate, giving the GOP great leverage over next year's redistricting.

The race is coming down to a contest for the less than 10% of Florida voters who remain undecided. Walkin' Lawton may well have to quicken his pace if he's going to keep the GOP at bay.

By Paula Dwyer in Tallahassee and Antonio N. Fins in Palm Beach, Fla.

TOP TO BOTTOM: PHOTOGRAPHS BY WAS STOFF (MAR TOM SAHLIN

POLITICS

GANTT: TO WIN, THE FORMER CHARLOTTE MAYOR WILL NEED AT LEAST 40% OF THE WHITE VOTE

THE UNTHINKABLE COULD HAPPEN TO JESSE HELMS

A black liberal may unseat North Carolina's firebrand

The Berlin wall crumbles. Mikhail Gorbachev shows up for work in an Adam Smith tie. And President Bush moves his lips, hips, and the rest of his anatomy in support of new taxes. To this list of cosmic happenings, North Carolina Democrats would like to add a footnote: Republican Senator Jesse A. Helms, New Right idol, scourge of Big Government, and self-appointed guardian of public morals, loses his bid for a fourth term to black liberal Harvey B. Gantt.

Sound improbable? Helms thought so, too, when Gantt, 47, the former mayor of Charlotte, emerged from a Democratic runoff calling for more federal support for social programs and insisting: "It's time for a change." While Gantt crisscrossed the state, taking his message of compassionate government to the mountains, piney woods, and booming suburbs, Helms was content to spend most of his time in Washington railing against the National Endowment for the Arts. "This year," jokes J. Gary Pearce, a Democratic consultant in Raleigh, "you can see Elvis a lot easier than you can Helms in North Carolina."

Now, Helms, 69, may be regretting his low profile at home. He has put most of his energy into a TV barrage depicting his opponent as out of step with "North Carolina values." Each ad ends with a picture of his black rival. Helms's latest tactic might be dubbed the "pink herring." He's saturating the airwaves with ads that claim Gantt is running a "secret campaign" to turn the state over to gays and lesbians.

Despite the pummeling, Gantt, a reserved, MIT-trained architect who sounds more like a black Yuppie than a social radical, has remained steadfastly unscary. A recent *Charlotte Observer* poll found him ahead by a stunning 49% to 41%.

BIG THUD. Helms's partisans insist the race is closer than that, and even delirious Democrats concede the poll numbers may conceal a latent anti-black vote that could well up on Election Day. But there's no question that Helms could be toppled, falling with thud that would reverberate through the conservative movement. "It wo be *the* Senate upset," says Emory U versity political scientist Merle Bla "Who would have believed that a g like Gantt could beat Jesse Helms?"

That's precisely the thought th sends chills up the spine of Will Clark, a 77-year-old retiree who is aw ing Helms's arrival at a reception Fayetteville's Prince Charles Ho "Frankly, I'm scared to death," Cl says, pausing to stare at a young bl woman who has mistaken the He gathering for a nearby wedding rec tion. The girl veers off, muttering, "T must be the wrong place," and Cl continues: "It's not just the possibi that Helms could be defeated. It's t people like Gantt could get into pow

Moments later, Helms enters the tel, striding past three Vietnamese girls lounging across the street, pumps hands while aides collect $ checks from the faithful. Then he he for a suburban school, where 200 w ing-class supporters—folks like T Massengill, 33, a mail carrier from farm community of Benson—are g ered for the rare chance to see Helm the flesh. Massengill says he's attrac to the senator's hardline positions on death penalty and taxes. And he, too worried about the election. "Yes Helms could lose this thing," Masse says. "One reason is that the transpla to the Raleigh area are a lot more lib than people in rural towns like Benso

A RELIC. When Helms rises to sp there is an oddly defensive tone to remarks. "Mr. Gantt says he's for cation. Well lah-dee-dah. Who doe want education?" he asks, adding he's every bit as dedicated to the e ronment as his foe. On these and o issues that Gantt has injected into campaign, Helms has been forced t spond, though he says that "libe have the same old solution—throw ey at it." And in the only flash of the Helms fire, he lashes his opponent captive of "the gays, lesbians, the la unions, the American il Liberties Union," abortion-rights group.

Then Helms does a rious thing. He quiet listeners by musing "there are far w things than losing election.... Win, lose rained out," he'd r go down fighting abandon his princi Back in Washing Helms strategist Ch

HELMS: OUTSPENDING GANTT THREE TO ONE

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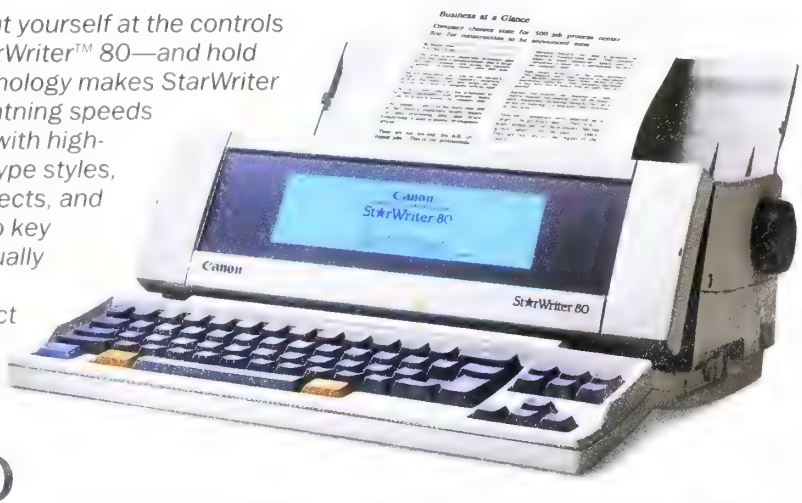

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Black explains that this is not just an emotional attempt to energize supporters. "Our people are scared, and they should be scared," asserts Black. "If the final weeks are fought out on the Democrats' issues of education and environment, Gantt will gain the edge. If it comes down to [Gantt's backing by] gays, crime, and taxes, we'll gain."

While Helms tries to demonize Gantt, the Democrat appears before enthusiastic crowds, pounding away at the notion that Helms is a relic of a bygone era. Aside from that central idea, Gantt's message is sparse and technocratic—it could have come from the Mike Dukakis songbook, except that Gantt is, if anything, more cautious than the Duke. Convinced that a "peace dividend" will free up funds for domestic needs, Gantt champions a modest boost in spending on education, environmental protection, and health care for the uninsured. "I'm a builder, an architect," he tells a Wadesboro throng. "I build bridges, I don't construct walls." Then he grins: "Do I sound like a radical to you?"

Well, no. But then, the legendary Helms political machine isn't quite through with Gantt yet. According to the most recent reports, Helms has raised $11 million, Gantt barely a third as much. The Helms camp will use its financial edge to mount a closing blitz that will fill North Carolina TV screens with images of dead bodies under blood-stained sheets, pulsating fetuses, and lurid headlines from gay publications.

WRONG TACTICS. As the maestro of orchestrated political resentment, Helms has always been able to make this visceral approach work in the past. But this time, some analysts question his strategy. "The gay-bashing in particular is risky," says Emory's Black. "Helms's core group is rural whites, but the real swing group this time may be white suburbanites. Jesse has lost some stature with these people. He's just not as socially acceptable as he was."

To win, Gantt must turn out record numbers of blacks, run up big margins in the populous urban corridors, and capture at least 40% of the white vote. Most pols think the latter goal still eludes his grasp, though he has run a campaign that has defied all projections for its ability to make Helms squirm. "Gantt's not there yet," maintains a top Helms strategist. "But he's close enough."

Could Gantt go the distance? No one who has seen Helms battle back before is quite willing to make that prediction yet. No one, that is, but Harvey Gantt, the man who shouldn't be in this race—but, inexplicably, is. "I'm talking about positive issues, while Helms is running a classic 1984 campaign," Gantt says smiling. "He's played right into our hands."

By Lee Walczak in Raleigh, N. C.

Marketing

FOOD PRODUCTS

THE CAMPBELL KIDS' COMEBACK: THEY PROMOTE A NEW LINE OF CHILDREN'S SOUPS

FROM SOUP TO NUTS AND BACK TO SOUP

After diluting its core business, Campbell is coming home

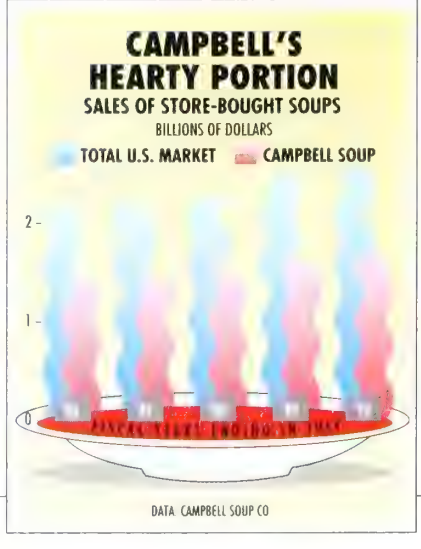
The Campbell Kids are back. After years of playing bit parts, the rosy-cheeked urchins who sold soup to generations of Americans are center stage again. Dancing with new black and Asian pals and an animated bear, the Kids are playing a major role in a new ad campaign from the giant soupmaker.

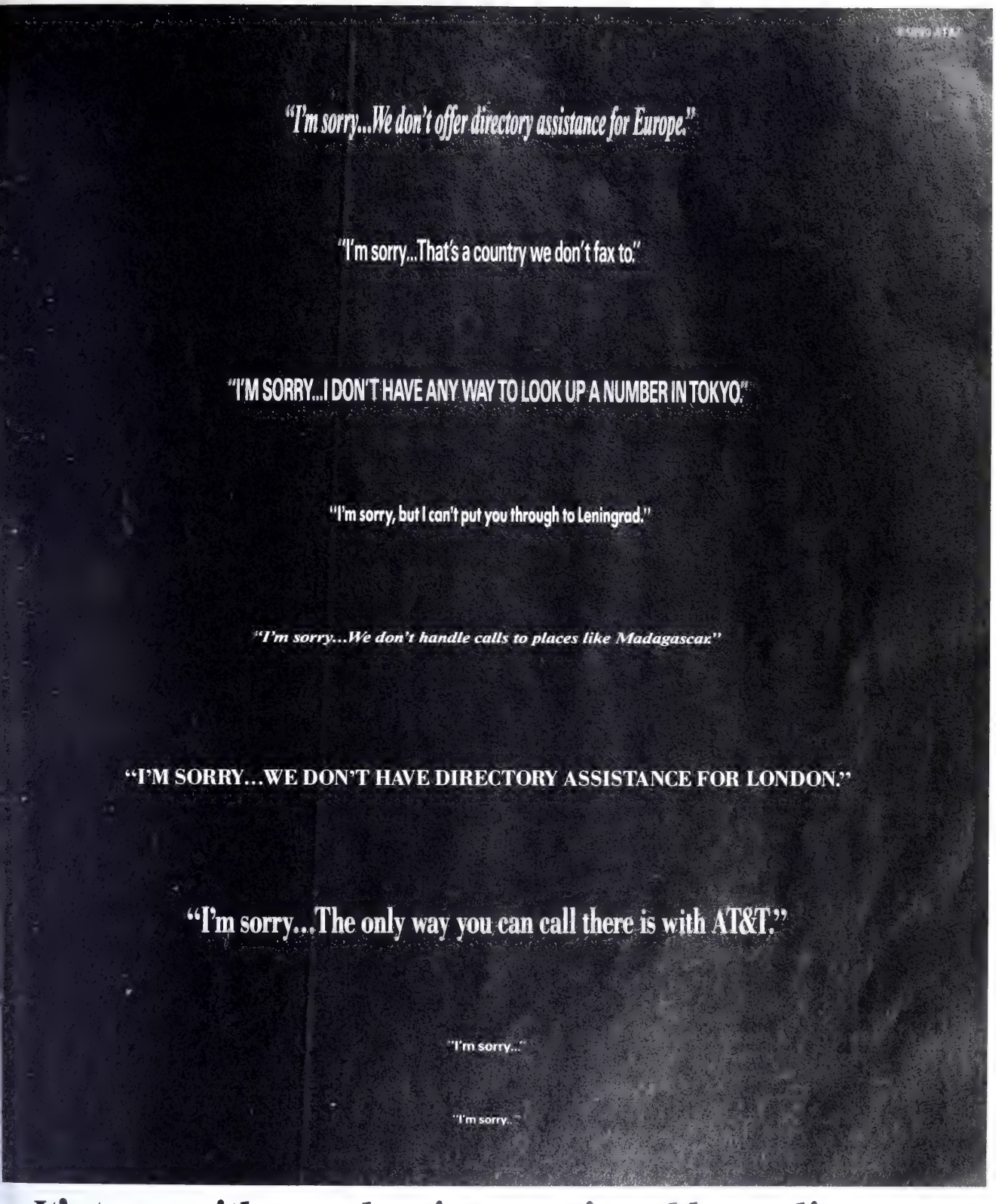
Credit the kids' rescue from oblivion to the back-to-basics strategy of David W. Johnson, Campbell's chief executive since January. Johnson, the Australian-born food executive who revived Gerber Products Co., took over at Campbell Soup Co. headquarters in Camden, N. J., after the abrupt resignation of his predecessor, R. Gordon McGovern. McGovern had focused his top executives' energies on a sprawling diversification away from soups and other sturdy Campbell brands. Despite some successes, the new-product binge stretched the company's resources too thin. By last year, Camp with $6.2 billion in sales, was near bottom of the food-industry rankings return on equity and profitability.

'GREAT CARDS.' In Johnson's view, Govern simply failed to work Campbell's strengths. "We have g cards, brands we can play," he s Those great brands include Pepper Farm cookies, and Le Menu and Sw son frozen foods.

But to Johnson, who likes to say aged mother in Australia is a far Campbell products, the company's st gest suit is its s line. Campbell s command alm two-thirds, or billion, of the billion U. S. ma (chart). And for latest fiscal y soups chipped i estimated half of $518 million in ating profits Ca bell earned be restructuring cos

Johnson thinks company's smar strategy is to ex this dominant tion. So in prep





It's true, with another international long distance service, you could get more of some things.

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AT&T
The right choice.

tion for "soup season," this fall and winter, Johnson told McGovern's old lieutenants—Campbell North American President Herbert M. Baum, marketing chief Paul N. Mulcahy, and soup sector head Robert F. Bernstock—to cook up a marketing plan for coaxing new growth out of the giant division.

Despite Johnson's optimism, that's a tall order. Campbell soups have been around for 121 years, and studies show that practically every U. S. household already has the company's soups on hand. And for store-bought soup in general, per-capita consumption has stalled at around 44 bowls annually.

But Campbell executives are determined to look on the bright side. "There's a genuine opportunity to grow," says Mulcahy. "Why not? You're talking about one of the basic foods in the whole world." The thrust of their new strategy is focusing their ads on specific soups and audiences. The Campbell Kids, for example, are not trumpeting Campbell soups in general: They're pushing a specific new line of children's soups. To do that, they have their first speaking role since 1958. Actually, they're singing—rap style. In one new commercial, for example, the gang sings that Campbell's new Teddy Bear Soup is "gonna make your mouth happy."

Other Campbell soups are getting the first product-specific advertising they have had in years. Television audiences and magazine readers will soon see ads promoting Campbell's tomato and chicken-noodle soups. Both are best-sellers but haven't had their own ads since the 1960s. One ad urges home cooks to top Campbell's tomato soup with cheese, pasta, tortillas, or even popcorn. Other ads promote low-sodium soups, microwave soups, family-size cans for budget buyers, and "cooking" soups such as cream of broccoli or mushroom, which consumers often use already in their own recipes.

CATCHY LINES. This product-by-product approach is a total rejection of the umbrella strategy the soup giant has been using for more than a decade. Campbell jingle writers came up with some pretty catchy lines—"M'm! M'm! Good!" or "Soup is good food"—to promote the idea of liking soup in general. Campbell figured that as the industry heavy it would benefit the most from any growth in soup consumption its ads encouraged.

Trouble was, none of these ads reminded consumers of particular Campbell soups. "It's pretty hard to salivate over soup generically," says Al Reis, chairman of Trout & Reis, a marketing-strategy company in Greenwich, Conn. "Just to say 'Soup is good food' doesn't make sense." And to work best, the umbrella strategy required Campbell to dominate every category of soup, which these days it doesn't. New categories—especially the inexpensive dry ramen noodle soup packs from Japan—have created a way of eating soup that Campbell has been slow to exploit. Campbell's ramen soups are so far available only in the Midwest: The company must build new plants before it can sell its ramen to California and the East Coast.

CONTRASTS WITH A 1990s AD TARGETING CONSUMERS WHO COOK WITH CREAM OF BROCCOLI

Campbell executives are applying a similar approach to other products. They're using focused ads for new Franco-American pastas. Remember SpaghettiOs? Campbell is now advertising a new line of canned pasta with animal and other figures in them. Herb Baum got the idea for these CircusOs, TeddyOs, and SportyOs by pawing through boxes of the newest children's cereals.

It's not just the Campbell Kids who are being called back into service. At Campbell's Vlasic pickles, the brand's well-known cartoon stork character—who imitates Groucho Marx—is back on ads and labels. For the juice division, executives are talking about reviving the "I coulda had a V8" campaign, wh last aired on television in 1985.

Also, the company is trying to redu its number of margin-squeezing pron tions for Campbell products. In sou for example, Campbell is issuing c pons that grant discounts only on p chases of two containers or more. Tha a departure from coupons that w good for just one can.

Paralleling this targeted approach the consumer is a push for more dis pline in the business end of advertisi Baum and Mulcahy have doled out th $200 million ad budget (about $50 mill for soups) to six agencies, down from before. That cuts administrative costs and makes the Campbell account m important to each remaining agen Baum is also linking agency compen tion to profits.

CRUCIAL TEST. And the agencies hav lot less to advertise. In soups, Campb has cut back from 91 items to about The company has dropped two lines t flopped, its expensive Gold Label li and the single-serving Soup for One li Johnson, who is aiming for a 20% retu on equity, is selling off whole bu nesses to focus more marketing. Such ope tions as Campbe mushroom farms, salmon processing pla the refrigerated-sala line, and Italian coo maker Lazzaroni have b put on the block. The b nesses that Johnson does want make up $500 million Campbell's sales.

Johnson and his top exe tives see this coming winter a crucial test of their new st egy. While they wait for resu they will benefit from cost-c ting started by McGovern, wh his final months began to scale work force back by nearly 10% less than 50,000.

So far, Johnson's stress on fundam tals has won the approval of one cru investor—John T. "Ipy" Dorrance whose late father was the compan chairman. Dorrance controls nearly o third of Campbell's stock. And un other relatives who want to sell th separate 17.7% stake, Dorrance is co seling patience: "I don't think you turn something as big as that aro instantly."

Even John Dorrance's patience, h ever, could wear thin if Johnson's r reliance on the basics does not acce ate growth. This soup season, clea the Campbell Kids have their work out for them.

By Joseph Weber in Camden, N

Do not be misled by its patina of gentility. On the road, it undergoes a distinct personality change.

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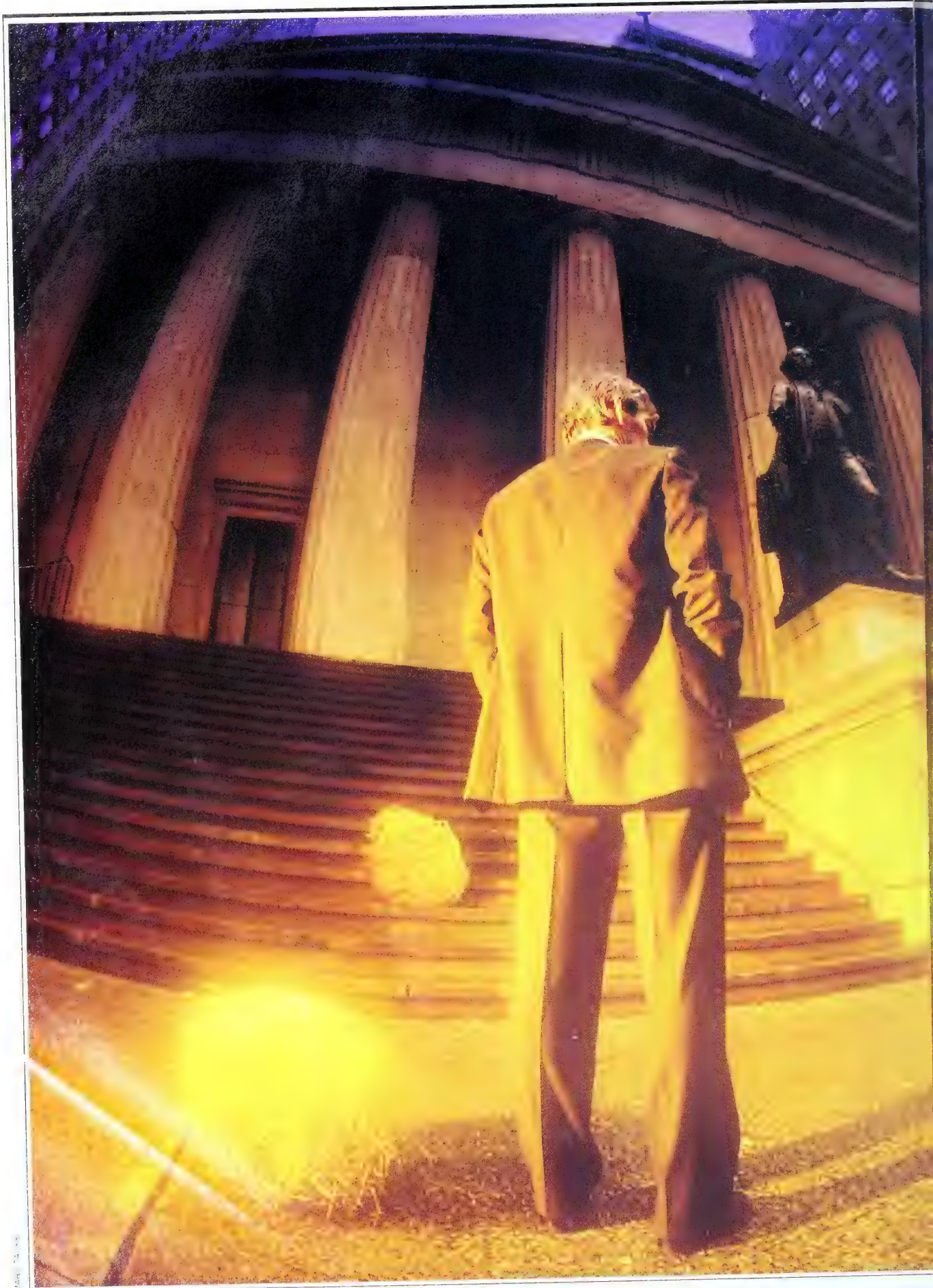
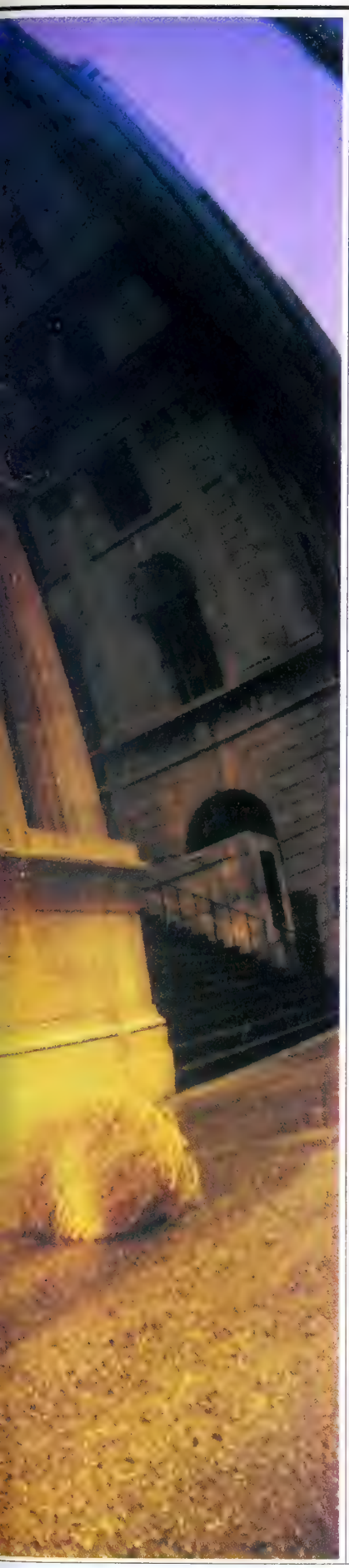
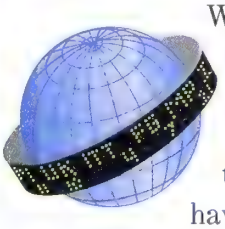




The Future of WALL STREET

WHY OUR FINANCIAL SYSTEM WILL NEVER BE THE SAME



Wall Street is in a deep funk, and the signs are everywhere. Once jammed restaurants in lower Manhattan are all but giving away food to get people in the door. Pedestrian traffic has thinned out so much that sidewalk bootblacks have left for other parts of town. Over the past two years, tens of thousands of Wall Street workers have been given pink slips. Industry profits have plunged. And a potentially ferocious bear market looms.

Not to worry, say the Street's old-timers. They've seen it all before. When the small investor deserted the market, big institutions came along and more than made up the difference. The '70s were the pits, but then along came the roaring '80s. The Street always bounces back. The good life always returns.

'THERE'S A WIDELY HELD VIEW THAT WALL STREET IS TAKING ADVANTAGE OF US'

This time, however, the old-timers may have it wrong. Sure, the stock market will eventually recover. But Wall Street today has far more profound troubles than market cycles. It could well be headed toward an irreversible decline.

For two centuries, Wall Street was the heart of the financial universe. It was ruled by the New York Stock Exchange and a tight fraternity of the biggest securities firms. Outsiders trying to compete didn't stand a chance. The insiders controlled the market's machinery. They had a lock on proprietary information. They had entrenched relation-

ships with the Street's best clients.

No longer. Several powerful forces are combining to undermine Wall Street's hegemony:

■ Many of the Street's biggest customers, particularly corporate financial and pension executives, have become disenchanted with the Street and the services it provides. "There's a widely held view that Wall Street is taking advantage of us, that they're not looking out for anybody's interest but their own," says William Dodge, portfolio manager for DuPont Co.'s pension fund. So companies are channeling more of their business to alternative markets or just doing it themselves. The most graphic evidence is the NYSE's slumping market share. According to a new survey, it is handling only 60% of the trading in NYSE-listed stocks, vs. 80% a few years ago.

■ Global markets for securities, featuring automated, round-the-world, round-the-clock trading could eventually eclipse Wall Street's capital-raising and secondary-trading dominance. These trading arenas will be essentially stateless entities much like the Eurobond market. They will offer new opportunities to professional and individual investors. But they could pose thorny problems for regulators, who are starting to deliberate about how, or if, to police them.

■ The proliferation of advanced technologies and cheap but powerful software and hardware is doing violence to the Street's competitive advantages. Technology is making once exclusive market information instantaneously accessible to anyone with a terminal. It is fostering new automated trading systems open to all players—not just securities firms. It is destroying Wall Street's old-boy network and replacing it with dealings based on price and service. Technology is also transforming once intricate, labor-intensive activities such as trade execution into simple mechanical functions. This is bad news for much of the Street's work force, especially many brokers, sales people, traders, and back office people. "If you don't add value," says NYSE specialist Robert J. Seijas, "you'll be eliminated."

INCOMING NYSE CHAIRMAN DONALDSON
SKEPTICAL OF AUTOMATED TRADING

'OPEN GAME.' Wall Street will not become a ghost town. Such astute firms as Morgan Stanley, Goldman Sachs, and Salomon Brothers are becoming international organizations and should remain formidable presences. The New York Stock Exchange, which is striving feverishly to defend its franchise, should endure, if not prosper, for years to come. But as George J. Vojta, head of strategic planning for Bankers Trust New York Corp., puts it: "The old oligopoly is over. It's an open game now. There's nothing on Wall Street that's proprietary or protected." As the global marketplace develops, most Street firms may well be relegated to the second tier.

The chief cause of Wall Street's malaise is unhappy customers. Huge public and private pension funds, with assets exceeding $2 trillion, have long been a lush profit center for the Street. Fund sponsors routinely ceded investment cretion to managers who had cozy tie Wall Street firms.

With pension fund performance ing an ever larger impact on corpo bottom lines and municipal budgets, sion executives in growing numbers taking more direct control of the inv ment process. Few have any special alties to Wall Street. Many, in fact, very angry at the Street.

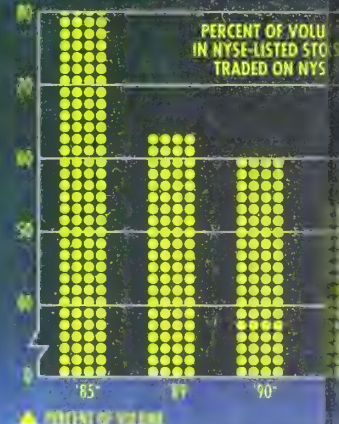
Pension executives are especially c cal of their managers' "soft-dollar" d with brokers they send orders to. In turn for generous commissions, brok give managers research and other vices. These services mostly benefit managers, not the pension funds pay the commissions. "It ha worked," says Eugene Noser, presi of Abel/Noser Corp., which moni pension transactions. "Wall Street ha helped people outperform the S&P 5

Many pension executives are now railing what they regard as Street's gravy train. They increasi are running some or all of their as in-house. To staff in-house operati they are hiring analysts and tra away from the Street, adding to

CAN WALL STREET BOUNCE BACK?

The numbers look bad. And the Street's problems go much deeper than the slump in dealmaking and the current bear market

THE BIG BOARD'S GRIP IS SLIPPING



has become a massive talent drain. T are slashing transaction costs: Com sions have dropped from a soft-dolla or more per share to execution-r rates of 2¢ or less.

To retain pension business, S firms find that brand names and school ties no longer cut it. "Buttons replacing relationships," says Micha Franzese, head of Chapdelaine Go ment Securities Inc. Boston-based terymarch Financial Management, a jor manager of pension assets, dis its buying and selling intentions t brokers and dealers on and off

nges. Whoever offers the best deal s the order. "We're relatively neutral ut whom we do business with," says terymarch chief Dean LeBaron.

he rise of index investing, where the estment manager assembles a portfo- to track a market barometer, such as S&P 500-stock index, reinforces these elopments. Most indexers use no ll Street research. And they are very sitive to transaction costs because main way one index fund can beat ther is to slash expenses to the bone. ndexers, as well as others who trade ge baskets of stocks, have been in the efront of the move away from the hanges. They are sending more and re of their business to alternative rkets ranging from third-market ns, which trade NYSE-listed stocks ay from the Big Board, to automated nsaction systems, such as Instinet the Crossing Network, both owned Reuters Holdings PLC, and POSIT, a t venture of Jefferies & Co. and RA Financial Services.

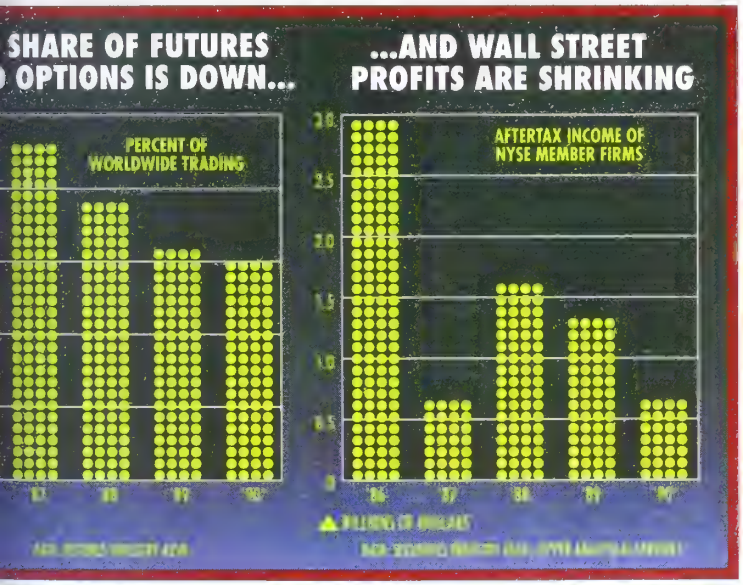
Villiam Donaldson, who will become E chairman in January, says "sys- s that put investment decision-mak- on automatic pilot usually end up to detriment of the customer." He in- s that customers get superior prices

what is called the fourth market. DeWitt F. Bowman, chief investment officer for the California Public Employees' Retirement System, which indexes about 75% of its $17 billion in U. S. equity assets, says he often deals directly with an informal group of a dozen other big pension fund managers. "You're just putting the natural buyers and sellers together," he says.

Some institutions, mainly indexers, are even starting to compete with Wall Street dealers, such as specialists—NYSE members who are obligated to maintain orderly markets on the exchange floor. Indexers, who constantly adjust their portfolios, are usually not that concerned about precisely what stocks they own or when they trade as long as their portfolios track the index. A few now profit by linking their portfolios with automated trading systems so they can regularly trade with other buyers and sellers. "Institutions will become the specialists," says John S. Hull, who oversees the numerous electronic trading systems operated and being developed by Reuters. "They have the inventory to take positions. They

fourth-market trading and business transacted on foreign exchanges. Fourth-market trading is growing especially rapidly, and may account for 25 million to 30 million shares a day, more than 15% of the NYSE's volume. This study, whose conclusions were obtained by BUSINESS WEEK, puts the NYSE share of the market at less than 60%.

Moreover, a big slice of the NYSE's business includes trades arranged by member firms and taken to exchanges simply as a formality to comply with NYSE rules. If that trading is subtracted, the Big Board's share would be only slightly over 50%. "The off-board market is much larger than most people realize, and it's growing dramatically," says Tim McCarthy, head of an institutional services unit of Fidelity Investments. The NYSE had no comment on the survey.



REUTERS' ELECTRONICS GURU HULL BIG INVESTORS WILL MAKE THE MARKETS

the NYSE. "When you have a human ng in the middle of a trade working you and a crowd of other buyers and lers," he says, "you can get the bene- of better bids and offers." The NYSE s it saved investors $400 million last r by giving executions at prices bet- than the official quote. Still, institu- ns argue that automated systems pro- e cheaper executions, greater nymity, and less impact on stock ces from trades of blocks of stock.

Some pension funds are stepping even ther away from Wall Street. They are ding securities among themselves in

are the ones that really control the market." Pension equity assets total $1 trillion, 20 times the capital of Street firms, who are cutting back market making.

MAJOR NEW SURVEY. The amount of business flowing to nonexchange markets is substantial. The Big Board says it is handling 83.9% of the volume in NYSE-listed stocks, down only slightly in recent years. Yet an extensive new internal survey by a highly respected financial institution found that tens of millions of shares are being executed every day away from the NYSE in ways not counted in the NYSE figures, such as

Corporate financial officers are as upset as pension executives. "If you get a group of CFOs in a room together, you'll find a good bit of anger and frustration toward the Street," says Samuel L. Hayes, professor of investment banking at Harvard business school. Gripes include outrageous fees, lousy deals promoted by investment bankers, and stepped-up merchant banking and trading by firms for their own accounts, often in conflict with their customers.

Most corporations still do a lot of business with Wall Street. But many are exploring ways to do more of it them-

selves. Such large companies as Du Pont, British Petroleum, and Interpublic Group run internal investment banks to handle mergers and acquisitions. Others regularly sell commercial paper directly to investors. A new system called CapitaLink allows major corporations to market bonds electronically direct to institutional investors and other customers. "Firms like Salomon Brothers and Merrill Lynch don't add value to these transactions," says CapitaLink Securities Corp. President David A. Jeffrey. He has signed up 125 major institutions and 16 prospective issuers, including General Electric Capital, Bank of America, and Household Finance. Jeffrey, who is now ready to start operations, hopes to get more than half of the plain-vanilla debt business, which generates annual fees to the Street of $500 million or more. Zane E. Brown, fixed-income head for Equitable Capital Corp., predicts CapitaLink will "flourish. It makes all the sense in the world."

GLOBAL SHIFT. Wall Street faces perhaps even greater threats internationally. Thanks to new technologies and the desire of big institutions to diversify their portfolios, once insular national securities markets are slowly coalescing into a global marketplace. There is growing cross-listing of securities and cross-border underwriting. The value of private pension assets invested overseas has grown from $21 billion in 1980 to $250 billion today.

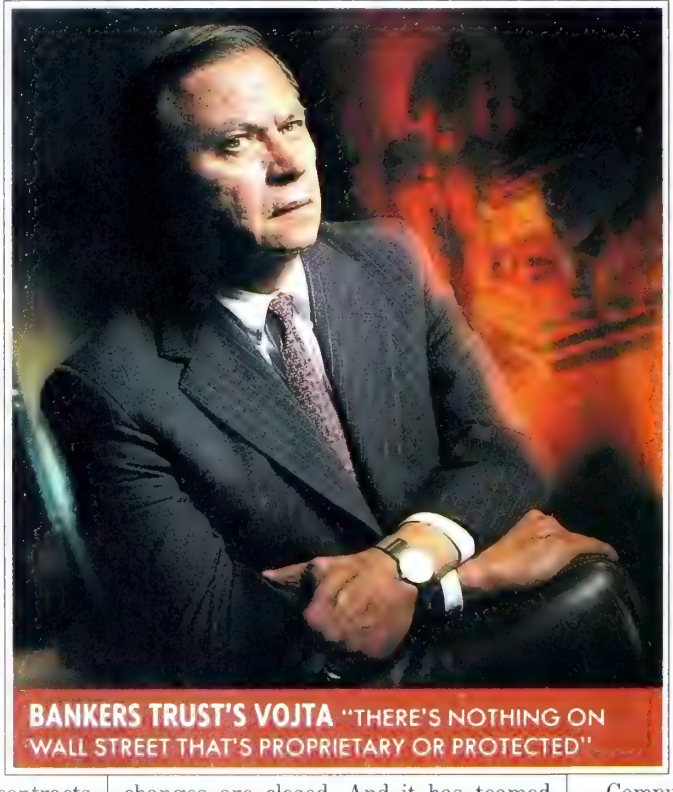
The U.S. is losing its big lead in the trading of derivative securities, such as stock options and futures. Overseas volume is growing three times faster than U.S. trading. One reason: Futures and options contracts are cheap to trade and easily copied by foreign exchanges.

Stocks do not travel as easily. But already daily trading of NYSE-listed stocks through the London stock exchange, much of it to avoid Big Board rules, amounts to at least 20 million shares, more than 10% of NYSE volume. Major foreign exchanges now list numerous companies from other countries. The NYSE, on the other hand, has few overseas listings, accounting for only 5% of its volume. Unlike the NYSE, most major exchanges in Europe and Canada are becoming completely automated.

Eventually, a stateless electronic market trading several hundred world-class securities is likely to develop, according to many observers, including Peter Schwartz, head of Global Business Network, a research and consulting firm. Much like the Euromarket and unregulated, it would not only trade stocks and bonds but could be a prime capital-raising mechanism for corporations in competition with U.S. markets.

Reuters is aggressively going after this market. The major purveyor of market data, with 200,000 terminals in 129 countries, it already operates Instinet, an electronic order-matching system that trades the stocks of some 10,000 companies in the U.S. and Europe. Early next year, it will launch GLOBEX, a joint venture with the Chicago Mercantile Exchange and the Chicago Board of Trade that will trade futures when the exchanges are closed. And it has teamed with the Chicago Board Options Exchange, the American Stock Exchange, and the Cincinnati Stock Exchange in a project that will trade options after hours. Despite its exchange partners, observers feel Reuters will try to replace trading floors and pits with its screens. Eventually, Reuters plans to combine the ventures so that investors all over the world can execute strategies involving stocks, options, and futures on a single screen. Reuters has been hit by long delays getting products launched. But Peter Schwartz says: "Reuters is years ahead of everyone else. The new global market will be a Reuters market."

NYSE President Richard A. Grasso concedes he is worried about global trading



BANKERS TRUST'S VOJTA "THERE'S NOTHING ON WALL STREET THAT'S PROPRIETARY OR PROTECTED"

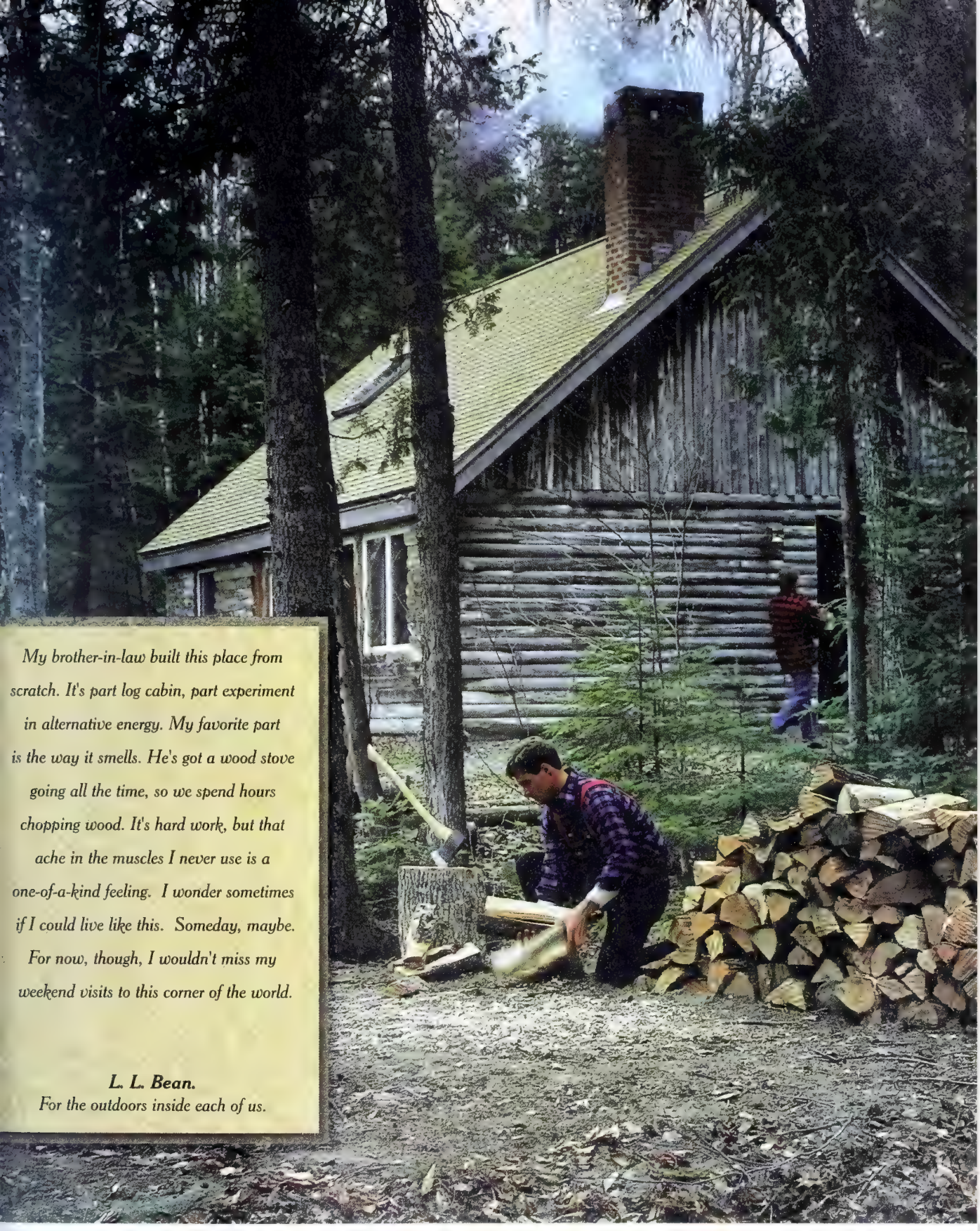
of stocks. He estimates that the NYS top 150 stocks, which could be in "con uous 24-hour demand worldwide" by end of the decade, account for half exchange's volume. By the end of year, the NYSE will launch automa systems to cross institutional tra without any involvement by speciali They will compete with the Cross Network and POSIT, which are expa ing overseas. If enough demand de ops, Grasso says he may recruit eno new specialists to staff the floor aro the clock.

There will be heavy competition these jobs if they open up, for tech ogy may devastate much of the res Wall Street's work force. Driven larg by firms trying to remain competit automation is transform many activities once formed by skilled individ into no-brainers—simple, c cal functions more efficie handled by machines. "W you're seeing is the commo zation of Wall Street," says curities consultant Junius Peake.

TERMINAL JOB. Take trade cution. All exchanges have stalled systems to ha small orders more or less a matically. The Big Board's system, which routes or under 4,000 shares directl specialists' posts, "blew o lot of people" such as b office workers and floor kers, says specialist Ro Seijas. Such facilities as Crossing Network and P let investors cut out bro and dealers. Some trades now done entirely electron ly, from initiation by com ers programmed to spot t ing opportunities to autom clearance and settlement.

Computers may take over other kets. Automated systems have started trading private placements. ters will soon launch a system to a mate foreign exchange trading. Sev vendors are studying ways to auto trading in government securities. tronic trading could wipe out broke those markets. Many observers large portions of the debt and m markets, including issuance and tra are sufficiently commodity-like t eventually automated.

Technology is eroding Wall Str once central role as an adviser to cli Customers now have access to the s news, prices, quotes, and other ma data that Street firms have. And n customers also have the same, if



My brother-in-law built this place from scratch. It's part log cabin, part experiment in alternative energy. My favorite part is the way it smells. He's got a wood stove going all the time, so we spend hours chopping wood. It's hard work, but that ache in the muscles I never use is a one-of-a-kind feeling. I wonder sometimes if I could live like this. Someday, maybe. For now, though, I wouldn't miss my weekend visits to this corner of the world.

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To be sure, Wall Street has a rich history of resisting disruptive technology. Redundant intermediaries will not surrender easily to machines. Merrill Lynch & Co., which said it would refuse to trade securities issued through CapitaLink, unsuccessfully tried to enlist other firms, say market sources, in a boycott of the system. Merrill Lynch denies organizing a boycott.

Yet many Street executives are taking a broader view of technology. For one thing, technology doesn't cut everyone out. Brokers and dealers will always be needed to handle difficult trades. Underwriters will always be needed to sell difficult issues. Technology, furthermore, "is both a destroyer and a creator," says Morgan Stanley & Co. Managing Director Lewis W. Bernard. "It squeezes spreads, but it also opens new prospects." While it hurts the inept, it helps the adroit. Morgan Stanley and Goldman Sachs are using technology as a competitive weapon. To handle its international business, Goldman has developed a global system that lets its traders throughout the world take securities positions in any currency 24 hours a day. Morgan Stanley has invested hundreds of millions of dollars in a thriving global custodian business, which can process trades in dozens of currencies and countries.

HEAD-TO-HEAD. Some firms are using technology to prosper in commodity activities. Long the leading trader in commercial paper, Goldman saw its margins all but disappearing. Some firms left the business. But Goldman aggressively automated the trading desk and now does twice the business with half the staff. "We're the low-cost producer with extremely healthy margins," says Rick Adam, the firm's technology head.

Will such firms as Morgan Stanley and Goldman Sachs survive the demise of the Wall Street oligopoly? George Vojta of Bankers Trust, which is going head-to-head with Street firms, asserts that most of them will soon be secondary players. "To be competitive, you need to be a universal banking institution," says Vojta. "You need to be able to take principal risk and put it on your balance sheet." Street firms claim that brains will beat balance sheets. "We've got the best financial engineering in the world," says Adam. "We're a financial Silicon Valley, a critical mass of talent and knowhow that will come out ahead."

Rescuing its fading franchise will take all the talent and knowhow Wall Street can muster.

By Chris Welles, with Monica Roman, in New York

CORPORATE AMERICA'S END RUN

More companies are structuring their own deals and trades

The acquisition was routine enough, it seemed. A Tenneco Inc. subsidiary, along with several other major investors, agreed to buy two containerboard mills, 19 corrugated-box plants, and 540,000 acres of timberland from Georgia-Pacific Corp. for $740 million in early September. But this deal was hardly routine. Tenneco did the acquisition itself, with no help from investment banks. It was a first for the company. "We've developed the basic skills," says Robert T. Blakely, chief financial officer at Tenneco. The conglomerate says it saved about $10 million in fees that a Wall Street firm would have charged.

British Petroleum Co. is even more venturesome. Its in-house investment bank, BP Finance, handles its own foreign-exchange trading. It has issued $9 billion in commercial paper directly to buyers since August. BPF also advised its parent company on two recent m billion-dollar divestiture deals: BP's of its mineral operations to RTZ Corp $3.7 billion and the sale of explor licenses to Oryx Energy Co. for $1. lion.

BP and Tenneco are not alone. Co ny after company is forsaking Street. During the 1980s, executive to the Street for advice on everyt from mergers to debt issues. But Street's expertise has rubbed off o clients. "Big corporations that are quent users of the market are now ly sophisticated and have the same of knowledge the investment b have," says Hans-Joerg Rudloff, c man of Financière Crédit Suisse Boston.

COUNTERFORCE. It's more than knowhow. The rise of big institut investors, now controlling more th trillion in assets, has produced a cou force to the investment bankers. T stitutions are buying all manner of porate securities directly from

uers, bypassing the Wall Street mid-man and saving a buck. Direct deal- is now easy because of quantum ps in trading technology, which link rporate issuers and institutional buy-. Plus, securities laws and regulations being relaxed worldwide, giving S. companies easy access to foreign ital markets.

To be sure, corporations are not about sever their ties to the Street. Smaller npanies without the resources of ge multinationals will continue tap- g Wall Street firms for financing. d corporate behemoths will still hire estment bankers who can dream up ovative strategies that lower the cost doing business, especially in a global nomy. First Boston Corp., for exam-, has set up a consulting arm to help npanies plan overseas investments t will be cushioned against swings in hange rates.

Still, competition for corporate busi-ss from banks, insurance companies, d overseas financial institutions is cut-oat. Bankers Trust Co.'s global mar- business earned revenues of about 0 million in 1989, and about half that n came from newfangled securities d fancy corporate financing tech-ues, compared with only $100 million 1985. "Wall Street no longer has a nopoly on creative ideas," says orge J. Vojta, executive vice-president Bankers Trust.

W-MARGIN.' More worrisome to invest-nt bankers is that their profits m financial innovation don't t very long. Mortgage-backed urities, collateralized mortgage igations, financial swaps, and er market inventions of the 0s are all "low-margin, com-dity-type businesses today," s Vojta.

The loosening of Wall Street's p on the corporate capital mar- has been most evident in com-rcial paper. Some 20 years ago, ue-chip corporate borrowers eding short-term loans migrated m banks to Wall Street. Invest-nt bankers underwrote and ded commercial paper for short-m corporate borrowers at rates lower than the commercial nks could offer. Today, CIGNA, xon, General Motors, and nu-rous other big-time names no ger pay fees to an intermediary sell all their commercial paper. ey market a hefty chunk of it emselves. IBM has taken this one p further, setting up the IBM ney Market Account. The com-ter maker is currently market-; this to its shareholders, al-ugh it is open to anyone with 500 to invest. The MMA, with more than $500 million in assets, invests solely in IBM Credit Corp.'s short-term paper.

Companies are now also directly selling longer-term debt to investors. In the private placement market, securities are peddled to institutions and not publicly sold. Prudential, Metropolitan Life, CIGNA, and other huge investors are directly soliciting new corporate issues. The Pru is among the most aggressive. It directly purchased $3.9 billion in private placements last year, up from $700 million in 1984. The insurance giant still uses investment houses to buy private placements—$5.6 billion in 1989—but direct transactions are closing the gap. Worse, from Wall Street's perspective, is that the Pru is no longer content to be a passive buyer. Last year, it resold some $1 billion in private placements to 26 other institutional investors.

In the public market, Wall Street's traditional dominance is threatened, too. Met Life last year tried to buy a $100 million public debt offering of Carolina Power & Light Co. and ace out four securities firms that were bidding. The Met lost that time, but similar incursions could occur in the future. The route of attack may be electronic. CapitaLink Securities Corp., a company 20% owned by commercial bank J. P. Morgan & Co., is geared up to let institutional investors bid competitively via computers for the public bonds of blue chips. CapitaLink will charge less than half the Street's typical fee. British Petroleum says it is one potential client. "It's the commodity-type business that corporations can do as efficiently as Wall Street," says Steven W. Percy, chief executive officer of BP Finance.

THE RIFT BETWEEN CORPORATE EXECUTIVES AND INVESTMENT BANKERS GOES A LOT DEEPER THAN RIVALRY AMONG SKILLED PLAYERS

For investment banks, standard operating procedure has long been to corner the market on expertise. Investment banks, says Samuel L. Hayes, professor at the Harvard business school, have always been vendors of very specialized information. For more than a century, America's financial innovators—from J. P. Morgan to Lewis Ranieri—thrived on knowing what to sell, to whom, and how. In 1879, Morgan stunned the financial world by selling the largest block of stock ever publicly sold by that time—250,000 shares of New York Central RR common stock for $32.5 million. He unloaded most of it abroad by knowing what terms would attract European money. In recent times, Salomon Brothers Inc.'s Ranieri built the $1 trillion mortgage-backed securities market by packaging residential mortgages into securities he convinced institutional investors were worth buying.

WINDS OF CHANGE. Wall Street's information edge has been eroding because of the diffusion of economic research and financial studies from academe. The theoretical insights of academic pioneers in the 1950s and 1960s were first tapped by Wall Street to create the stock-index futures market, the options on futures markets, and other highly profitable derivative securities. But such financial thinkers as Harry M. Markowitz, William F. Sharpe, and Merton H. Miller, recent winners of the Nobel prize in economics, also furnished the insights that demystified market lore into mathematical calculations now easily performed by anyone who takes a finance course. These newly minted mavens of finance are now found all over, from banks to insurers to corporations. And relaxed federal rules now permit banks and other financial institutions to compete directly with investment bankers.

The new market sophistication

CUTTING OUT THE FINANCIAL MIDDLEMAN

Company/Financial activity
BRITISH PETROLEUM Set up its own in-house investment bank that issues commercial paper, performs interest rate and currency swaps, and does mergers and acquisitions
DU PONT M&A unit does an average of 20 deals a year, ranging from $5 million to $500 million
EASTMAN KODAK Conducts foreign-exchange trading and hedging, up to $25 billion yearly
GENERAL MOTORS ACCEPTANCE Financing arm of auto maker was one of first to handle own commercial paper. Total portfolio: $26 billion
IBM Computer maker's finance unit offers a money account to the public that invests solely in IBM Credit's short-term paper
INTERPUBLIC Advertising conglomerate has bought 80 companies, almost all without Wall Street
PHILIP MORRIS Bought Jacobs Suchard, a Swiss coffee and candy producer, for $4.1 billion using own staff. Engaged investment banker in deal only for fairness opinion and market analysis
TOYS 'R' US Sold $200 million private debt issue directly to Prudential Insurance Co. in novel 'shelf registration,' allowing it to draw money when it chooses

DATA: BW

turned up early at oil goliath Exxon Corp. under Jack F. Bennett, its cerebral finance chief for 13 years, who retired in 1989. Beginning in the 1970s, Bennett, a former professor at Harvard, transformed his financial satrapy into an operation so skilled that the company often used Wall Street only to distribute its securities.

The rift between corporate executives and investment bankers goes a lot deeper than rivalry among skilled players. It's a reaction against the insider-trading scandals and other revelations of untrammeled greed among Wall Street dealmakers. Corporate executives shake their heads over fee-happy investment bankers who loaded companies with ruinous amounts of debt. Says John C. Sargent, Du Pont Co.'s vice-president for treasury: "The excesses of the 1980s left a bad taste in a lot of people's mouths." Private comments on the subject are even more biting. "Americans will ruthlessly eliminate financiers out of corporate life," says the head of a major European investment bank. "They bankrupted too many good companies."

FLYING SOLO. Companies with the financial knowhow seem to relish excluding Wall Street from their mergers-and-acquisitions work. By itself, Du Pont has done some 80 acquisitions and divestitures over the past four years. Interpublic Group of Cos., the huge international advertising concern, has grown through 80 acquisitions in 20 countries during the past decade. In almost all cases, it didn't use an investment banker. "We're able to control what we do," says Eugene P. Beard, executive vice-president for finance and operations at Interpublic. "If we brought in investment bankers, we'd go broke on fees."

When one of these solo fliers engages Wall Street at all, it is usually for a fairness opinion, the low-fee grunt work that assures shareholders the pricing of a deal is reasonable. That's about all the work that Philip Morris Cos. farmed out when it bought Jacobs Suchard Ltd., a Swiss coffee and candy producer, in August for $4.1 billion. It quietly tapped Swiss banks and its own Swiss affiliates to avoid roiling the Swiss-American exchange rate—and thus made the deal less expensive.

And we're not just talking about big companies either. Take Harry C. Schell, chief executive of Cablec Corp., a maker of industrial cable in New City, N. Y. He was looking for a deep-pockets company to buy Cablec and give it the financial oomph to expand. Instead of hiring a downtown Manhattan marriage broker, Schell went visiting friends in the industry. Result: BICC PLC, a big British cable maker, bought Cablec last year for $122 million. And if they don't w to do it themselves, companies can g commercial bankers to act as merg and-acquisition advisers—paying s stantially lower fees.

Investment bankers are fighting b though. They're developing new fi cial instruments and seeking new m kets. And Wall Street is doing more more business overseas, following flow of international capital. "The vestment bank of the future will un stand the idiosyncratic nature of m kets around the world, their rules regulation," says Myron Scholes, a nior adviser at Salomon Brothers wh currently on leave from Stanford U versity. Indeed, one of the more lu tive Wall Street endeavors these day helping to design complicated securi that shield companies from changes interest rates and currency values.

Walt Disney Co. is a case in po Disney paid Merrill Lynch & Co. a million fee for its part in a $2.25 bi offering by the entertainment comp in late June. The issue was anything mundane: Disney sold 6% zero-cou bonds convertible into U. S. dollars e in cash value to the market price fixed number of shares of common s in Euro Disneyland, a publicly French company. Disney is using money it raised at below-market rate fund capital expenditures and retire pensive commercial paper.

LABYRINTHINE DEALS. But this counte fensive carries a downside. An unc fortable amount of the investm houses' business will increasingly pend on labyrinthine deals that coul bad if projections turn sour. H pressed investment bankers are exp to huge capital losses if the risks take on for corporate customers re on their balance sheets. Witness bridge loans from the 1980s that m got stuck with after deals stalled.

Wall Street's *raison d'être* has to raise capital for U. S. industry. one is saying investm bankers will be shut from doing business Corporate America s But now that more co nies can raise money easily and cheaply by own exertions, Wall S is starting to find tha former best customers often its fiercest com tors.

By Christopher Fa and Larry Light in Y York, with Richard A. cher in London, Deb Fowler in Houston, an reau reports

INTERPUBLIC'S BEARD "WE'RE ABLE TO CONTROL WHAT WE DO. IF WE BROUGHT IN INVESTMENT BANKERS, WE'D GO BROKE ON FEES"

'AMERICANS WILL ELIMINATE FINANCIERS OUT OF CORPORATE LIFE. THEY BANKRUPTED TOO MANY GOOD COMPANIES'

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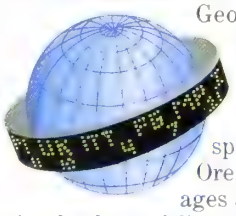
Armed with new technology, many investors are bypassing brokerages and their services



Geoffrey Cutler doesn't need Wall Street.

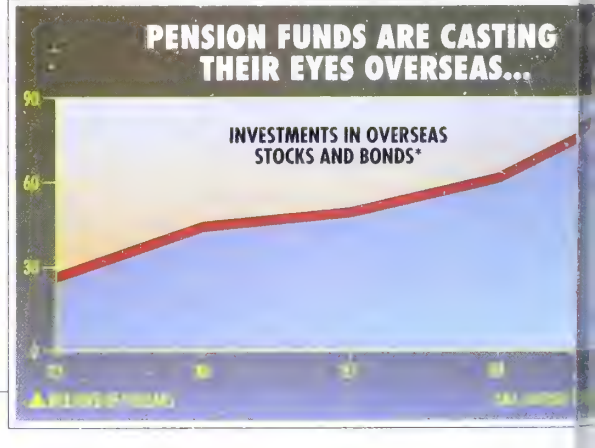
At his office in the wooded splendor of Medford, Ore., where he manages $600 million in pension-fund portfolios, Cutler has always been physically far removed from the canyons of Lower Manhattan. And the distance is growing greater by the minute. Brokerage house research? Unnecessary. "We have a computer screen companies by [financial] criteria, and then we go through them by hand," he explains. "If we want an opinion on a company, we go there direct."

Trading? His firm uses "fourth-market" systems such as Reuters' Instinet, which matches buyers with sellers, bypassing the exchanges and the NASDAQ system. Increasingly, Cutler finds the best prices for his clients among the flashing numbers posted on computer screens by investors and traders who, like him, are far removed from the crowded floor of the New York Stock Exchange. "Technology is finally catching up with the overbloated labor structure of the Street," says Cutler, himself a former brokerage-house analyst.

Jeff Cutler is not an enemy of Wall Street, but the Street has reason to fear the trend he represents. For money managers, Wall Street is fast becoming irrelevant. Investors, large and small, are finding cheaper ways to do business. The mechanisms that are evolving to replace Wall Street in the technology-driven global investment marketplace are designed to satisfy investors such as Cutler.

Institutions that control large pools of capital are cutting back on services that once fed the coffers of stockbrokers. Research, trading, underwriting, money management, brokerage—all are being taken in-house. "Institutions are finding they can live without most of Wall Street's research," concedes George L. Ball, chairman of Prudential-Bache Securities. And for most large-capitalization stocks, he adds, alternative trading systems may be more economical than traditional brokerage.

The old-line Street brokerage firm no doubt, will always be supplying some of those needs, but no longer will the traditional intermediaries be indispensable. "We are looking for different things out of Wall Street," says George R. Trumbull III, president of CIGNA Investments Inc. "We will see more



alization. I think the creative ones will rvive."

One prerequisite for survival is success overseas. Only within the past decade have pension funds funneled more an token amounts abroad, and money ployed overseas has been steadily ounting in recent years (chart). And is trend is only beginning. As the econnies of the Far East and Europe have ossomed, the market capitalization of S. stocks and bonds has shrunk to st 30% of the world's capital markets, mpared with 80% in 1960. "Not many . S. firms] will be able to achieve a rong international presence or master e complexity of markets, products, and nguages," notes Trumbull, who has aced $4.5 billion of CIGNA assets in forgn securities.

ASSIVE' ACTIVITY. Fund managers—and e corporate treasurers who hire em—are notoriously risk-averse, and r many, the word "global" evokes imes of overseas bourses and companies th inscrutable accounting methods. ut the resistance is fading. And that is rgely because of the global extension a form of investment that has wide peal to corporate treasurers and pen-on trustees—"passive" index-fund instments in overseas stocks and bonds. iat is a global variation on the domesindex-linked investment strategies at have grown increasingly popular nong pension-fund trustees. In the doestic version, portfolios are designed match the performance of one of the ajor stock indexes, usually the Standrd & Poor's 500-stock index.

Such "passive" investments outclass tively managed portfolios because S. money managers have long underrformed the market. That has not only ntributed to unemployment among oney managers but also hammered okerage commissions. Indexation is aking the juice out of the business for all Street by making it into a commod- market," says Kevin Barry, a fixed-come investment principal at 1838 Instment Advisors in Philadelphia.

Global index funds are an ominous delopment for the Street—and not just cause of threadbare commissions. Of late, Japanese firms have made headway into this type of investment and pose a challenge to such U.S. index powerhouses as Morgan Stanley, Salomon Brothers, and Wells Fargo. Although Tokyo's Big Four brokerages have not been on the cutting edge of the "rocket science" and technology required to design complex global index portfolios, they are getting there. "[The U.S.] is ahead at the theoretical and implementation level, but the Japanese are catching up. They are aggressively finding out what they don't know and are outspending us in research and development," says William E. Jacques, a partner at Martingale Asset Management, which specializes in complex investment and trading strategies.

Japanese securities firms have been quietly but vigorously pursuing global index strategies. Since 1986, when Kokusai Shoken launched index funds investing in foreign bonds and Japanese stocks, Japanese firms have been pouring cash into index ventures. Among Japan's Big Four brokerages—Nikko, Nomura, Daiwa, and Yamaichi—Nikko was first to introduce a computerized investment product. It has gained a leg up on the competition in the global index biz by buying into the Berkeley (Calif.)-based international investment consulting firm BARRA Financial Services. Among other things, Nikko offers the TOPIX Index Fund, which tracks the TOPIX—the Tokyo Stock Price Index—using a computer model called the Nikko/BARRA Japanese Equity Risk Model.

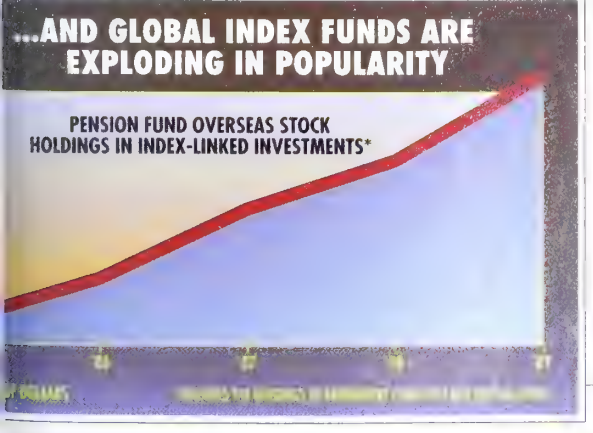
Index strategies may be the perfect way for the Japanese to take U.S. business away from Wall Street. Buying and selling baskets of stocks, which are required in assembling indexed portfolios, takes no special insights about companies. So U.S. brokers have no inherent advantage over foreign firms in chasing index business here. "Investment technology is currently being transferred to Japan," asserts Toshio Yokoyama, the senior manager in charge of investment technology strategy and planning at Nikko. "However, Japan will catch up. Then we may turn investment technology into an export industry."

London is another rival to Wall Street for the rapidly growing global index-fund business. Major British firms such as Barclays deZoete Wedd, Morgan Grenfell, and James Capel all manage global index investments. London is posing a threat to Wall Street in yet another arena—trading. London has the world's largest screen-based quotation system for international equities—SEAQ International—and $2.3 billion in U.S. shares trade in the City every month.

Meanwhile, London—and Wall Street—are facing new competition as bourses across Europe deregulate. Frankfurt and Paris are vying to set up a quotation and trading system that would encompass 200 to 300 of Europe's blue-chip companies. Europeans are also increasingly prominent in the U.S.-pioneered realms of futures and options. The MATIF market in Paris is becoming a popular trading center for derivatives; London is merging its fragmented futures and options exchanges to bolster its competitive position; and Frankfurt has developed a fledgling but sophisticated options market.

INVESTOR CUTLER MEDFORD, ORE., IS CLOSE ENOUGH TO WALL STREET FOR HIM

LOSING CONTROL. For Wall Street, the increasing technological savvy of overseas markets and brokerages can mean only one thing: Its franchise is slipping away. By improving liquidity, such developments will tend to lure European and other international investors away from Wall Street—further adding to the



BRAVE NEW MARKETS REUTERS' EMPLOYEES TEST THE GLOBEX SYSTEM, WHICH WILL TRADE FUTURES WHEN THE EXCHANGES ARE CLOSED. THE SYSTEM COULD BE A KEY PART OF THE EMERGING ELECTRONIC GLOBAL MARKET

woes of U.S. firms. Alastair Ross Goobey, chief international investment strategist at James Capel & Co., notes that because U.S. investors are increasingly taking a global view, "Wall Street can have less control over the total market."

But if the challenges abroad are daunting, they are no less serious than the threat posed by institutional investors who shun Wall Street. It's not just comparatively small players such as Jeff Cutler who are finding the Street increasingly irrelevant. One conspicuous example is General Electric Co. GE manages its $36 billion retirement funds in-house and is taking on outside business. Yet it relies little on Street research and trading systems and even custom-designs its own domestic and foreign index funds. That makes GE its own broker, analyst, and rocket scientist—even though the GE empire includes an old-line Street firm, Kidder, Peabody & Co.

What is Wall Street's role? To provide bare-bones trade-execution services—at the lowest possible cost. "If we want to buy 80 stocks for a new client, we'll negotiate execution [of trades] so we can do it at an attractive rate," says John Reinsberg, senior vice-president at General Electric Investment Corp. Indeed, the investors who have the least clout—small investors—are likely to be least affected by the revolution on Wall Street. Although small investors have taken advantage of the proliferation of overseas mutual funds, including popular single-country portfolios, they are only indirectly touched by the Street's increasing globalization.

Executives of big investment houses see the handwriting on the wall when it comes to the institutions. Salespeople who sell to them "will have to do more than parrot research and arrange dinners," says Pru-Bache's Ball. Success will come to those who can fill the bill as "provocative alter egos of portfolio managers," providing strategy and financing techniques. The low-margin trading in listed stocks will be replaced, says Ball, by proprietary market-making—in stocks of companies undergoing bankruptcy reorganization, for instance.

Some on the Street see the pressure building on the institutions and their money managers at least as much as on themselves. If the rate of return on financial assets cools in the 1990s, the fees paid to manage money will contract, notes Charles I. Clough, chief investment strategist at Merrill Lynch. Fat data bases may make much of the Street's research extraneous, as it allows. But research on the future of a company still is more of an art than a science—and one worth paying for, Clough asserts. "Only a handful of institutions can really create the research base," he says.

Nevertheless, institutions have chipped away at the brokerage franchise. There's no easy way for the Street to win back investors. Some are gone forever. Cutler finds all too many on the Street making excuses for ducking automation. Many are still "absolutely frightened to death of technology." So long as that hangup continues, investors like Cutler will keep their distance from Wall Street.

By David Zigas and Gary Weiss in New York, with Ted Holden in Tokyo and Richard A. Melcher in London

GE MANAGES ITS $36 BILLION RETIREMENT FUND IN-HOUSE, TAKES ON OUTSIDE BUSINESS, AND EVEN CUSTOM-DESIGNS ITS DOMESTIC AND FOREIGN INDEX FUNDS

The numbers outside.

WILL THE WATCHDOGS BE READY FOR TOMORROW'S MARKETS?

The revolution in trading may force regulators to rejigger the rules—without driving away investo

Wall Street's Old Guard isn't alone in wrestling with the massive changes rippling through the financial markets. Automated trading, the growing clout of institutional investors, and above all global investing, all pose hurdles for regulators struggling to keep pace with the fast-evolving securities business. "The market is well ahead of the regulators," admits Richard C. Breeden, chairman of the Securities & Exchange Commission.

Can the regulators catch up? With trading splintering away from established exchanges, the watchdogs are wrangling over how to police such transactions. What's more, the dominance of institutional trading and the growing globalization of the markets are forcing the SEC to rethink some of the basic tenets underlying 60 years of federal securities law. Ultimately, Washington may be compelled to loosen some of its longstanding tough disclosure and accounting standards to harmonize its rules with those of other countries. The SEC, says Harvard's Samuel Hayes, "will have to make significant compromises."

Technology poses one of the biggest headaches. True, the shift from manual to automated trading creates better audit trails of transactions. But developing surveillance systems to monitor such trading on a global scale may be impossible. Just within the U. S., government agencies have been largely unable to detect such manipulative practices as "frontrunning," in which traders profit by buying and selling stocks to move the more volatile stock index futures.

EVASIVE MANEUVERS. Even if market regulators detect abuses, they may have to pull their punches. With the world's exchanges locked in a competitive brawl, choking home markets with hard-nosed rules might drive today's mobile investors to friendlier environs. Consider Wall Street's program traders. Recently, some firms have set up shop in London to evade growing restrictions on program trading. "There is going to be less margin for error," says Joseph R. Hardiman, president of the National Association of Securities Dealers.

Pressure is already building on U. S. policymakers to make concessions. To attract foreign issuers to U. S. exchanges, for instance, the SEC in recent years has exempted some blue-chip foreign companies from rigorous U. S. accounting standards. Moreover, a pending SEC initiative would allow U. S. and Canadian companies to sponsor cross-border stock offerings. Under the proposal, many Canadian companies also would be exempted from some U. S. disclosure requirements. This arrangement ma extended to other countries.

Perhaps the SEC's most far-reac initiatives involve institutional inves Recognizing their dominant role, agency has expanded the market fo vately placed securities, which are l ly bought by professional inves These securities don't require n disclosures and let companies raise ey relatively cheaply. To ease tra for institutional investors, the SEC has promoted the development of pr trading systems by exempting from the rigors of exchange regula

Consumer advocates question wh the SEC's efforts to accommodat new market forces come at the exp of small investors. House Energ Commerce Committee Chairman Jo Dingell (D-Mich.) worries that fu fragmentation of the marketplace create a "lack of public confidence will reduce liquidity and volume."

But while regulators undoubtedl try to appease the cries from Street, the markets have alr changed. There's no going back t old rules on Wall Street.

By Dean Foust in Washington, wi reau reports

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AS HIS COMPANY STRUGGLES, A CEO DIGS IN—AT THE PLAZA, THE RITZ . . .

If James E. Stewart can't rescue Lone Star, he may be best known for a $2.9 million expense acco

On Nov. 16, 1989, top executives of Lone Star Industries Inc. were contemplating the future of their company. The outlook was grim. The nation's largest cement company was facing serious troubles as its revenues and profits were ravaged by a housing slowdown and foreign competition. Among options under consideration, according to a company memorandum on that date, was the gravest step any company can take: liquidation. And that, alas, only would have netted an estimated $16.77 a share, $4 under the $21 share price at the time.

But serious as the company's travails surely were, they had not begun to put a dent in the lifestyle of its flamboyant chairman and chief executive officer, James E. Stewart. During the period between Nov. 11 and 17, 1989, according to internal company records obtained by BUSINESS WEEK, Stewart spent $14,194 at the Plaza, one of New York City's swankiest hotels. A schedule of Stewart's 1989 expenses shows that Lone Star paid $148,329 over a 12-month period for Stewart's bills from the Plaza—where he would stay when paying a visit to the corporate headquarters 50 miles away in Stamford, Conn. He lives in Florida.

BIG TAB. Welcome to the world of James Stewart, the man with the $2.9 million expense account. Internal documents obtained by BUSINESS WEEK and accounts from sources close to the company paint a picture of an executive who dined well at the corporate trough. Stewart spent that sum in 1989 to maintain a helicopter and a plane, which cost $2.3 million to operate, and stay at fine hotels such as the Plaza, the Ritz in Paris, and the Fairmont in San Francisco, where he ran up a $20,000 tab for four nights last year. "A stay in the Marriott just wouldn't fit his image," explains Jon E. Tropsa, former Lone Star accounting director. The company also rented a New York hotel suite for a Stewart ally on the board of directors, Sheldon Kaplan.

Stewart did not respond to repeated requests for interviews. A spokesn replying to written questions pose BUSINESS WEEK, said Stewart's 198 penses were $410,000—not including of the aircraft.

Stewart is hardly the only chief ex tive to live well at company expense. what has made the Stewart saga s triguing is that it contrasts so jarri with the failing fortunes of the com he heads. Lone Star realized a $271 lion loss in 1989. Instead of liquida the company decided late last ye engage in a "reorganization" in w the company would sell $400 milli its assets in an effort to make Lone smaller but profitable.

Yet as losses have mounted, the pany's shares have declined to a r price of $6.50—$10 less than might been received from the contemplate memberment. As the share price p meted, the company's dwindling cad institutional investors has grown tient. "Management should be th out," says Kenneth M. Luskin, a b

WITH THE CEMENT GIANT LOSING $271 MILLION LAST YEAR, STEWART ORDERED LAYOFFS, SOLD CORPORATE ASSETS, AND TOLD HIS MANAGERS TO FLY COACH. BUT HE STILL USES A COMPANY JET TO GET UP TO STAMFORD HEADQUARTERS FROM HIS FLORIDA HOME

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for PaineWebber Inc. whose clients collectively own almost 5% of Lone Star's stock.

Investors may have good reason to be irked. Interviews with past and present executives, many of whom requested anonymity, reveal a lavish lifestyle that is amply borne out by company documents. According to internal records, in November, 1989, alone, Stewart's hotel expenses weighed in at almost $75,000, including a $42,000 charge for the Ritz Hotel in Paris on a European investor-relations trip. Even though Stewart is said to hold business meetings at these hotels and the Plaza, his high-flying ways have spawned resentment within the company. "Jim Stewart manages the company for his ego and pocket," asserts one top executive.

THE BARTERED JET. Of late, however, Stewart apparently has made some concessions to Lone Star's hard times. Sources say Stewart has laid off both company-paid chauffeurs, instead hiring limos on contract. And a spokesman said Lone Star sold its helicopter and BAC 111 jet, which was comparable in size to a DC-9 jetliner. He said the sale resulted in a $2 million profit, "including depreciation." He would not elaborate. So now Stewart is using the company's Hawker jet for short hauls to and from his Florida home and elsewhere. And last summer, when he had to go to Europe for business meetings, he flew there in a Gulfstream jet. A spokesman said that the Hawker had been "bartered" for the Gulfstream.

Some company executives and investors question why the board of directors hasn't put the brakes on Stewart's spending. The board boasts an impressive array of political and managerial talent that includes Robert S. Strauss, former chairman of the Democratic National Committee, and Dwayne O. Andreas, CEO of Archer Daniels Midland Co. The directors meet with Stewart frequently over dinner at the "21" Club in New York and at Chasen's in Los Angeles, with some such director expenses included in Stewart's schedule.

For director Kaplan, the Lone Star connection has been lucrative. The company paid Kaplan's Minneapolis law firm $1.27 million last year for legal services, and it will be paid "a minimum of $300,000 in 1990," according to this year's proxy statement. Moreover, company sources say Kaplan is provided with a suite at the Lombardy Hotel in New York—a detail that does not appear on the company's proxy statement, which details the compensation of directors. Securities & Exchange Commission officials say that federal securities laws do not explicitly indicate whether such perks have to be indicated in proxy statements.

Kaplan says he uses the suite—but that it is available to other directors and executives. "I've spent a multitude of days and nights there," he says, adding that "other people have stayed there." However, the schedule of Stewart's 1989 expenses, which has been obtained by BUSINESS WEEK, shows a $57,548 expenditure with the description "Lombardy suite for S. Kaplan."

According to company sources, Lone Star division heads recommended that management cut the Lombardy suite and trim Stewart's expenses as a way to cut costs. But that kind of advice doesn't sit well with Stewart. "He's not accountable to anyone," says one former executive.

Managers complain all the more bitterly about such practices because their own perks were slashed to the bone. This year, Stewart cut executives' annual bonuses. And managers were ordered to reduce travel and entertainment costs. While Stewart's New York hotel expenses ran almost $6,000 in September, 1989, managers recently were ordered to fly coach and limit restaurant expenses to $45 per day. Says one former executive: "It was frustrating to be told to cut back on paper clips and pens and then see $20,000 going out the door on Stewart's monthly T&Es."

UNRETURNED CALLS. Meanwhile, Stewart was putting an even tighter squeeze on Lone Star's costs. Between June and September, Lone Star laid off about half the technical and support staff of the Pyrament Division. The company has also laid off the investor and public relations staff leading one money manager to complain that "no one [at Lone Star] returns my calls." Former public relations director Mary J. London says the company's message to analysts has been that Lone Star was on the road of recovery. But London, who now heads a public relations firm in Trumbull, Conn., says that "investors are now seeing that the emperor has no clothes."

Indeed, the company's ongoing program of asset sales appears to have come too late. Lone Star has had them on the market just when demand for cement assets is crumbling. So far, the company has sold only about $255 million in assets—half made up of stock ties sold at about 80% of their value.

Lone Star is still trying to raise much-needed cash. And shareholders aren't likely to be bailed out by future profits over the near term. Analysts estimate that Lone Star will add to the red ink in 1990 with a projected loss of $13.1 million, or $1.10 a share, on revenues of about $2 billion.

With the economy in a slump, only shrewd bargaining for the company's remaining assets can save Lone Star's net worth—and Stewart. The jet-setting CEO may continue to stay at the Plaza and the Ritz. But unless he comes up with some quick thinking to save his company, he may be picking up his own tab.

By Lisa Driscoll in Stamford,

LONE STAR INDUSTRIES INC.
SCHEDULE OF JAMES STEWART EXPENSES
FOR YEAR ENDED DECEMBER 31, 1989.

DESCRIPTION	EXPENSE AMOUNT	TOTAL EXPENSES
PLAZA HOTEL :		
12/05/88 - 12/09/88	$3,622	
12/05/88 - 12/09/88	7,435	
01/24/89 - 01/27/89	4,506	
02/13/89 - 02/17/89	6,045	
02/21/89 - 02/22/89	1,503	
02/21/89 - 02/22/89	1,125	
03/13/89 - 03/16/89	5,066	
03/02/89 - 03/04/89	2,763	
04/17/89 - 04/22/89	10,246	
04/25/89 - 04/26/89	1,472	
05/15/89 - 05/18/89	5,561	
05/30/89 - 06/01/89	2,045	
05/08/89 - 05/09/89	1,504	
06/11/89 - 06/12/89	1,041	
06/07/89 - 06/08/89	1,122	
07/10/89 - 07/12/89	2,946	
07/23/89 - 07/24/89	1,681	
08/13/89 - 08/19/89	12,810	
08/21/89 - 08/24/89	5,351	
09/11/89 - 09/14/89	6,259	
09/18/89 - 09/24/89	13,302	
09/28/89 - 09/30/89	5,522	
09/06/89 - 09/07/89	1,982	
10/14/89 - 10/19/89	10,542	
10/23/89 - 10/25/89	3,788	
10/30/89 - 11/01 89	3,494	
11/11/89 - 11/17/89	14,194	
11/21/89 - 11/22/89	2,300	
11/26/89 - 11/29/89	7,471	
11/05/89 - 11/06/89	$1,631	
		$148,329

STEWART'S T&E ACCOUNT SHOWED A TALENT FOR HEAVY SPENDING IN LIMITED TIME

TEAM WORK

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D RELIABILITY IN THE AIR: AIRBUS WAS
GNED AND EQUIPPED THROUGH THE COOPERATION AND
NERSHIP OF 4 EUROPEAN COUNTRIES AND THE U.S.A. THE
NES AND AVIONICS FOR EXAMPLE, ARE PARTLY DESIGNED
BUILT IN COOPERATION WITH THE AMERICANS. AIRBUS
VERS THE PRECISE REQUIREMENTS OF AIR CANADA,
ICAN, BRANIFF, CANADIAN INTERNATIONAL, CONTINENTAL,
ERN, NORTHWEST AND PAN AM, WHO FLY AND WILL FLY
COLORS. THE QUALITY OF THE WORK AND THE ORIGINALITY
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BY GENE G. MARCIAL

'I HAVE NEVER SEEN SO MANY STOCKS . . . SO UNDERVALUED'

Investment guru John Templeton missed only a beat or two when the stock market crashed on Oct. 19, 1987. He was aggressively buying stocks a few weeks later. Now, with the Dow off almost 500 points from its high and gloom engulfing investors, Templeton is buying heavily again.

"In my 50 years in the business, I have never seen so many stocks, specifically the shares of emerging growth companies, so grossly undervalued by the market," says Templeton, who is considered one of the shrewdest mutual-fund investors around. As chairman of Bahamas-based Templeton, Galbraith & Hansberger, he advises 52 mutual funds and 100 institutional accounts with total assets of $15 billion.

Templeton expresses little concern over the market's sharp decline since last summer. "We are finding the best bargains in industries where there is great pessimism," he says. Usually, investors pay a steep premium for shares of rapidly growing companies, he explains, but in his view, they are now selling at a discount to their intrinsic value.

SMALL IS BEAUTIFUL. He scouts for winners primarily among shares of small and little-recognized over-the-counter companies whose earnings have been growing at annual rates of 15% to 40%. These issues have been hammered down some 25% to 50% in the past two months, he notes. Templeton has taken advantage of the fall to scoop up these shares for various Templeton funds.

His main hunting grounds are the technology, drug, and financial-services industries, including some regional banks, insurance, and investment-management companies. In technology, he likes Digital Communications Associates, a maker of data communication networks; Quantum, a supplier of high-capacity disk drives for small business computers; and Digital Microwave, a maker of digital-microwave and fiber-optics products.

In health and medical care, Templeton expects robust returns from Mylan Laboratories, a maker of some 125 prescription drugs; Millipore, a major supplier of products for analyzing and separating liquid components; and Laser Industries, which makes carbon surgical-laser systems.

In banking: First of America Bank, a Michigan bank-holding company; Suntrust Banks, which owns banks in Florida and Georgia; and North Carolina's United Carolina Bancshares. In insurance: American Bankers Insurance Group, Pioneer Financial Service, and First American Financial.

Templeton's top pick is a blue chip: Monsanto. "It's one of the best bargains," he says. The company has been pulled down by selling sparked by the jump in oil prices. But long-term investors needn't worry, says Templeton. If oil prices stay high, Monsanto will eventually raise its prices. The company is trading at 42, down from a high of 62, and has a p-e of only 8.4.

TEMPLETON: FOCUSING ON GROWTH ISSUES

SATELLITE TV: LOOK, MA, NO DISH

Shares of Compression Labs, the world's largest supplier of "videoconferencing" systems, have been trading actively in recent days, rising from 11 to 14½. But it isn't just videoconferencing that's firing up the stock. Compression's technology could soon bring in even bigger bucks if it catches on as part of a nationwide home-entertainment network that is currently in the works.

Some major players are betting that Compression's link with Northwest StarScan, a Seattle-based partnership, could kick up earnings as early as 1991. Through its SkyPix unit, StarScan plans to launch the country's first direct satellite-to-home, pay-per-view video-entertainment service. The SkyPix system will allow viewers to pick up movies from 80 channels without a receiving dish. Earlier this year, StarScan gave Compression a $3.5 million contract to produce a compact, inexpensive decoder/receiver box for SkyPix' satellite system. Says Compression CEO John Tyson: "The decoder works, and we can begin producing next year."

Whispers are that StarScan has signed a pact with a strategic partner to finance the production of Compression's decoders. "If consumers can get first-run movies in their homes, on demand, at reasonable prices, the SkyPix market could be enormous," says PaineWebber analyst Bob Sullivan.

One investor expects Compression to earn 30¢ a share this year, vs. 10¢ last year. But with SkyPix, he thinks 1991 earnings could soar to $3 a share.

POLAROID: WHAT THE BEARS ARE MISSING

The Street hasn't let up on Polaroid. The company's stock has slumped to 22 from 29 on Oct. 2, when a federal judge ruled that Eastman Kodak will have to pay $909.5 million to Polaroid for violating its instant photography patents. A verdict of $2 billion to $2.5 billion had been expected.

But some pros believe Polaroid has become way undervalued. They concede that Polaroid's core business has stagnated and that its profit margins are under pressure. They're buying anyway. Here's their case:

The money that Polaroid will get from Kodak translates into an after-tax take of some $600 million, or $12 a share. That means an investor is paying only $12 a share for the company. And Polaroid will likely use $300 million of the payment to make a tender offer for 30% of its own shares at around $30 apiece. That would add 25¢ to 50¢ a share to Polaroid's earnings, estimates Morgan Stanley analyst Brenda Lee Landry.

Another consideration: One big investor thinks Polaroid's depressed share price could tempt a few of its business partners, including Japan's Minolta, to buy a stake. Minolta has an exclusive contract to sell Polaroid Spectra Pro cameras in the U. S. under the Minolta name. A Polaroid spokesman says Minolta isn't barred from buying Polaroid stock. The pact with Minolta "is one way to determine how the two companies could work together in the future," he says.

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PTERS WHICH ARE ASSEMBLED FOR NORTH AMERICA BY A
EMBER WORK FORCE IN TEXAS FULFILL THE DEMANDS
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G TOGETHER KEEPS US UP THERE. MEET THE TEAM.

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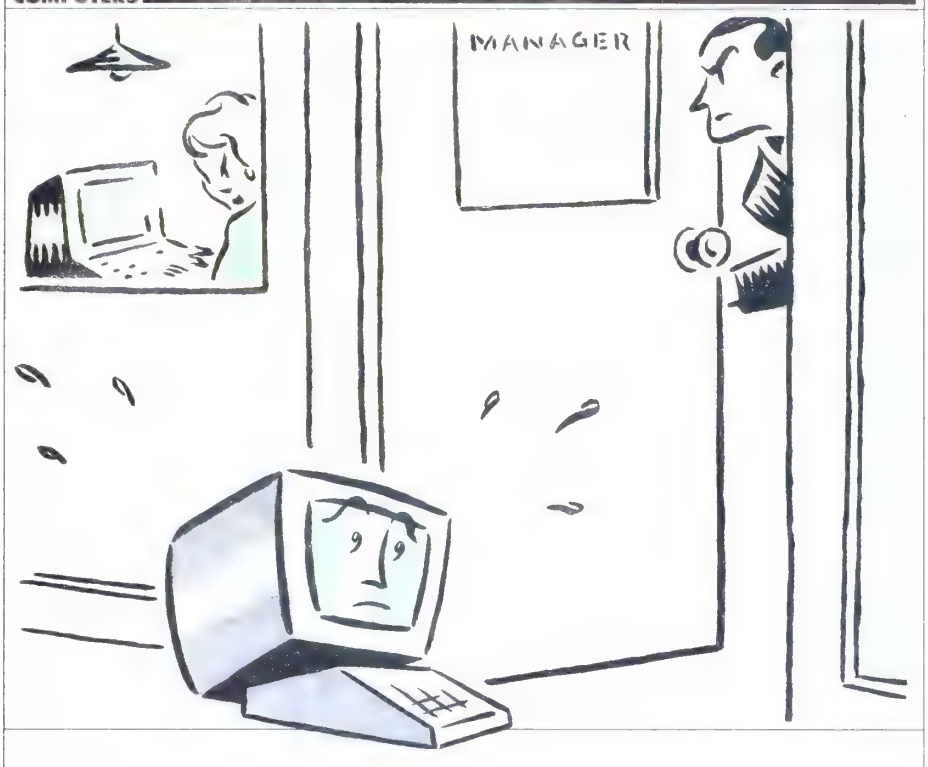
COMPUTERS



PC MAKERS HAVE A VIRUS

The threats of recession and war are slowing growth to a standstill

Since late last year, makers of personal computers have been telling investors that the days of 20% and 30% annual growth rates were over. At $27 billion a year, the U.S. PC market has simply become too big to sustain such breakneck expansion, they explained. As recently as June, industry pundits were predicting a more sedate, but still healthy, 10% annual rate.

By now, those projections look intoxicatingly high. With the prospect of war in the Middle East and recession jitters at home, PC sales growth has shuddered to a near-standstill. Depending on whose figures you use, sales of PCs to businesses in the U.S. are contracting or just barely expanding. And European PC demand—the main growth engine for many companies—has slowed, too. Growth there is expected to jump 18%, far less than last year's 32% upswing.

IBM, the biggest PC maker in the world, has turned decidedly gloomy. On Oct. 16, Big Blue partly blamed slowing PC sales to business for its 1.5% drop in third-quarter hardware revenues. Analysts figure its PC sales were flat. "We see some overall slowing," says Winnie Briney, director of IBM's Personal System line of PCs. "We're spending a lot of time thinking about recession and the economy." Hewlett-Packard, NEC, Sun Microsystems, and others concur: "There is no question that there is flatness," says Mike Naggiar, general manager of HP's North American PC division.

SHIFTING MARKET. How much flatness? Audits & Surveys, a New York City firm that tracks PC sales through dealers, says August sales were down 1.3% over the same period last year. Dallas-based researcher Storeboard/Computer Intelligence, which tracks the PC market the same way, says sales in August were up 2% (chart). For the first eight months of the year—before the economic outlook dimmed—sales were up only 5.3% over 1989, Storeboard says.

Dealers, who remain the best barometer of market trends, say the severity of the slowdown depends what you're selling—and whom yo selling to. Laptops and "file-serv that run computer networks are sel well, as are home PCs. Yet ordi desktop PCs, which make up mos IBM's line, aren't. "There's been a change in what's selling," says Mark ban, president of Dallas reseller M Solutions Inc.

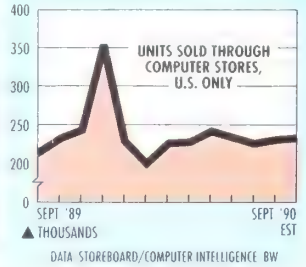
Indeed, corporate customers, such Cheryl Currid, director of applied in mation technology at Coca-Cola Food Houston, say big companies are sc nizing PC budgets. The most likely chases to get through, Currid figu are machines such as network file-s ers that help save money by "dow ing" from minicomputers or m frames. "All of the PC makers ough be very keen on this," she says.

That trend has kept Compaq Com er Corp., a big player in servers laptops, from sliding. "Watch out for gloom and doom," warns Chairman jamin M. Rosen. "Compaq is optim about growth now, next year, and the '90s." In North America, Comp third quarter shipments rose 20% though revenue was up just 5%.

NERVOUS AND WARY. What's drag down the overall market is weak mand for run-of-the-mill desktop PCs industry's staple. Two-thirds of A ca's biggest companies are fully a mated and now are bracing for a s down. So they're skipping rou replacements of older desktop mach industry executives say. "Everyon getting cautious," says Richar Miller, assistant vice-president of tems marketing at NEC Technologies "The guy who was planning to buy units is now buying 15."

The biggest belt-tighteners so have been small and medium-size nesses. Those companies, which about 70% of the PCs sold in the U are not only jumpier but can halt bu plans more quickly than big busine can. That means that things will worse in the coming months if big nesses follow suit. Dealers say ma the PCs that were sold to large co nies during the two-thirds of the were actually order the start of "We're trying to d mine how many projects have beer plemented since th ginning of August fore the Middle became a factor," Avery More, pres of the CompuCom

DOMESTIC PC SALES FLATTEN OUT



DATA: STOREBOARD/COMPUTER INTELLIGENCE BW

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tems Inc. chain. "So far, we can't tell." Not many, if the Commerce Dept.'s capital-spending figures are any indicator. Commerce says such spending will rise 5.4% in 1990, not the 8.1% rate expected early this year.

Price cuts are one obvious remedy, and IBM and its rivals have been slashing away, cutting tags by as much as 30%. Both Hewlett-Packard Co. and Compaq have reduced prices twice since summer. And Apple and IBM are both selling new, low-cost PCs to novices—apparently successfully. "We're seeing dive bombs in pricing," says dealer Cuban.

That's good news for customers. "The pricing is better than it's ever been," says Matthew J. Fitzsimmons, owner of ComputerLand of White Plains (N. Y.). But it's bad news for profit margins. "The PC companies have decided that lower margins and some gross profit is better than high margins and no gross profits," says consultant Seymour Merrin of Merrin Information Services Inc.

As a result, some makers of desktop machines, notably HP and Sun Microsystems, have started their own belt-tightening. Sun, which reported lower-than-expected earnings Oct. 24, has ordered a hiring freeze and curbed travel to save on overhead. And dealers, already squeezed by tight margins, may be facing tougher times (box).

While the companies are showing mixed results—low-priced clone makers such as Dell Computer Corp. and Research Inc. are still doing well, example—Wall Street has decided t the whole PC crowd is in for a bur ride. As a group, PC stock prices h dropped nearly 45% this year, or m than twice as much as the overall n ket, says Rick J. Martin, an analyst Prudential-Bache Securities Inc.

Things could get even worse if economy heads further south. "That wild card," admits Joseph R. Can Compaq's normally optimistic chief e utive officer. And he doesn't even w to talk about what a Persian Gulf would mean to sales.

By Deidre A. Depke in New York, bureau reports

DEALERS 'COULD SEE A BLOODBATH'

When personal computer makers get hit with a sales slump, they tighten their belts. Travel budgets shrink, hiring ceases, and salaries are frozen. But dealers, who live on razor-thin margins in the best of times, have little to cut when things get tough.

That's why the PC slowdown has computer resellers biting their nails. "We could see a bloodbath in the first quarter of 1991," says researcher JoeAnn Stahel, of Storeboard/Computer Intelligence. "Resellers have relied on the fourth quarter to bring them out of a hole. It's not going to happen this year."

Indeed, this could be the worst beating that dealers have had in a decade. PCs have become a huge business and, as a major item in capital budgets, now seem likely victims of corporate cuts. "For the first time, our industry is seeing some impact from the economy," says Ed R. Anderson, president and COO of ComputerLand Corp. The 750-outlet franchisor says shipments dipped 5% in September.

SUPERSTORE THREAT. Before the economy began to slow, dealers were already in trouble. Although 1989 revenues among the 12 largest publicly owned chains grew 46%, to $4.1 billion, profits declined 84.6%, according to Merrin Information Services Inc. At big chains such as Businessland Inc., gross margins have skidded from about 24% to 15% since 1988.

Part of the problem lies with how dealers operate. To draw corporate customers, many focus on few products and sell them from expensive downtown stores. Lately, "superstores" have undercut them by selling thousands of items from massive suburban outlets—at rock-bottom prices. "Superstores pose serious threats," says Michael Dell, CEO at Dell Computer Corp., which sells its clones through superstore SoftWarehouse Inc. "They can operate at half the cost."

Traditional dealers had hoped to make up for tiny margins on hardware by selling services such as network consulting. But many customers prefer to hire specialized "systems integrators" for such expertise. Perhaps the biggest victim of that trend has been Businessland, the chain that hired scores of sales reps and consultants to give big customers the kind of serv they once got from computer make themselves. The chain wound up losi $23 million on revenues of $1.35 bill in the year ended June 30. "The model reseller is a dinosaur," sa ComputerLand's Anderson.

To survive, dealers are cutting co to the bone. Businessland is laying 10% of its work force and is mergi ComputerCraft, a s chain catering to sm businesses and c sumers, into its n work. By clampi down on costs, Dall based CompuCom S tems Inc. eked out $2.1 million profit $235 million in sa for the nine mon ended Sept. 30.

'For the first time, our industry is seeing some impact from the economy,' says ComputerLand's COO Anderson

Needless to say, i vestors have gro wary. Stocks of co puter store cha have fallen more th 60% from their 2 week highs. And Co puter Factory, base Elmsford, N. Y., wh is expected to post a loss for its fis year, has received an unsolicited f from a San Francisco investment fi offering to buy the $369 million ch for $4 a share, or $34 million.

That's better than folding—a f many of the nation's 4,500 dealers m face. At times like this, says Com Com President Avery More, "the w get weaker." If the PC slump con ues, the strong may follow suit.

By Barbara Buell in San Franc

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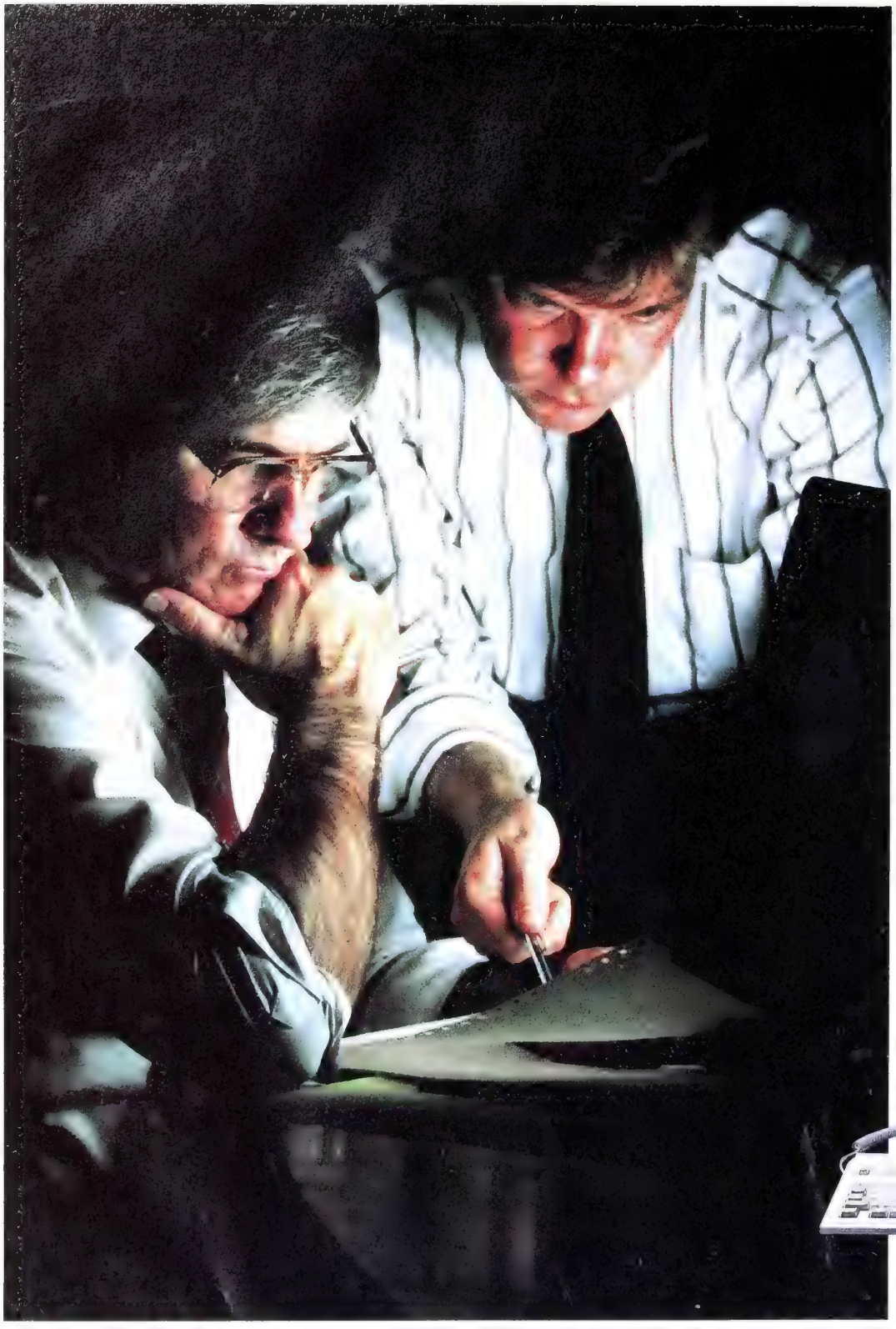

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NIH IS NOT HE INSTITUTION IT WAS'

nding cuts, scandals, and politics are taking their toll on the venerable biomedical research agency

n 1930, during the debate over legislation to set up the present-day National Institutes of Health, Representative James O'Connor (D-La.) predicted t the government agency would be ne "one of the glories of the nation." was right. On its sprawling Bethesda l.) campus, the NIH's in-house laboraes have churned out discoveries over years that have helped fight everyng from polio to AIDS, and the agency financed a huge network of universiabs and research institutes. Largely ause of the NIH, says Samuel O. er, president of the National Academe of Sciences' Institute of Medicine, U. S. has "probably the best biomedi research in the world."

ut this proud institution, with its $8 on budget, is now plying troubled ers. The NIH's reputation, power, and uence are all under siege. In July, House appropriations subcommittee ealth issued a report that chided the ncy for making shortsighted funding sions. Two other House subcommitve been probing alleged scientific d and conflict of interest among -funded scientists—and have helped ose potential scandals in several ncy-funded laboratories.

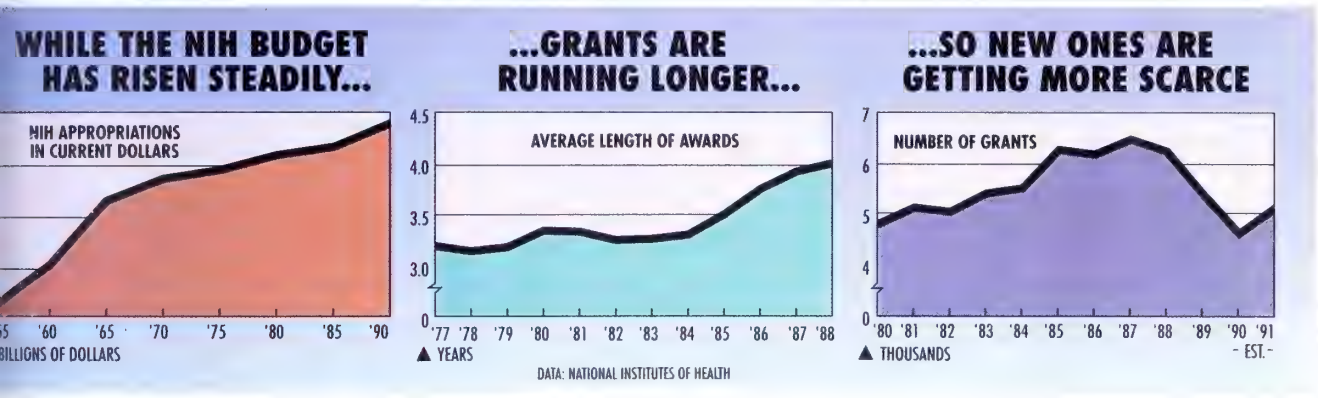
OND-CLASS PAY. Morale, once sky- at the 15,500-employee agency, is ering. The post of director has been nt since July, 1989, when James B. ngaarden was forced out—partly be- se he is not an abortion foe. Potential idates keep turning the job down, g the director's declining status and a salary that peaks at $99,000—not much for a top-flight physician. Health & Human Services Secretary Louis W. Sullivan has settled on cardiologist Bernadine P. Healy, research director of the Cleveland Clinic. But the White House, which won't comment on the matter, has yet to officially nominate her.

If Healy gets the nod, she will inherit a plethora of controversies and administrative headaches. One issue she would face immediately is the increasing politicization of biomedical research. The continuing ban on federally funded research using fetal tissue is just one example. Administration officials imposed the rule because pro-life forces believe the research encourages abortions. But scientists say it bars them from developing key treatments for scourges such as Parkinson's disease and diabetes. In fact, Healy's support of such research could hurt her chances for nomination.

If she surmounts that challenge, Healy will also have to contend with perennial personnel problems: Fed up with second-rate federal salaries, top U. S. scientists are hard to recruit and keep. In fact, foreign citizens now account for one-third of the agency's 4,800 doctoral-level researchers. NIH staff researchers are also steamed by new congressional rules, which take effect Jan. 1, that prevent federal employees from receiving fees for lectures. "When they can't accept the same honoraria that every other scientist can, it's insulting, degrading, and demoralizing," says Robert C. Young, president of Fox Chase Cancer Center in Philadelphia.

Several potential scandals will also be inherited by a new director. One agency scientist, Syed Zaki Salahuddin, recently pleaded guilty to conflict-of-interest charges after funneling government business to a biotech company founded by his wife. And AIDS virus co-discoverer Robert C. Gallo is under investigation by the NIH for alleged scientific misconduct, although he has been cleared of more serious charges of stealing cultures of the AIDS virus from French competitors. One of the remaining allegations is that Gallo didn't give proper credit for other people's work.

Such cases have fueled charges by two House subcommittees that the agency has failed to prevent conflicts of interest and scientific misconduct among the 50,000-odd scientists who receive NIH money. "The highest value in science should be truth, but we have examined cases which indicate that scientists may be more concerned with money, self-preservation, and obfuscation," says Representative John D. Dingell (D-Mich.). He has held highly publicized hearings on alleged shady dealings—including possible fabrication of data by a researcher in the Massachusetts Institute



CLEVELAND'S HEALY: FUTURE DIRECTOR?

CHARTS BY LEN HOLMAN/SA

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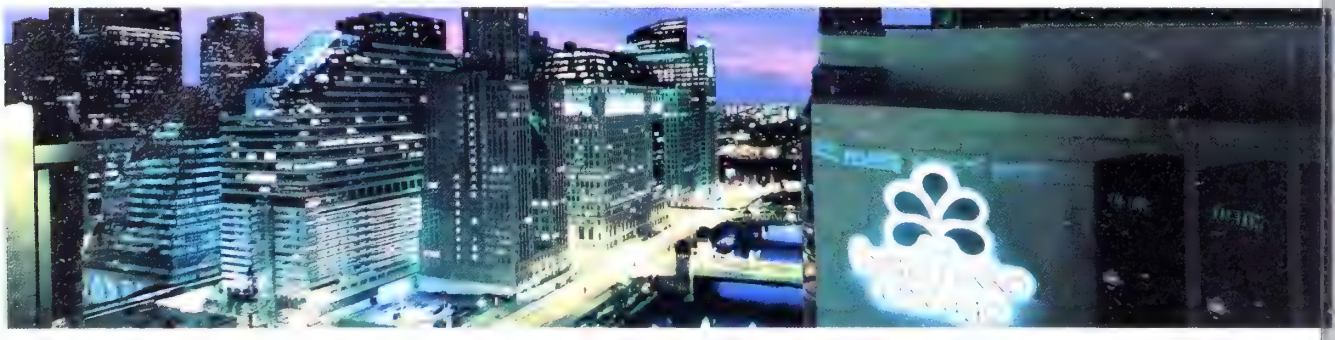

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GALLO: UNDER INVESTIGATION

of Technology lab of David Baltimore, a Nobel laureate. Baltimore has denied any improprieties.

Perhaps the most significant controversy at the NIH involves what some are calling a crisis in the funding of medical science. Even though the total money handed out by the agency is at an historic high, many scientists are complaining because the number of new grants has dropped (chart). When the agency budget jumped by 13% in 1987, the NIH put much of the increase into new grants, funding a record 6,446 of them. It also handed out longer stipends. But since then, the NIH budget has grown slower than its administrators had anticipated. And with existing grants tying up so much money, the agency has had to cut the number of new grants. This year, the NIH made only 4,600 new awards—and funded a record low 25% of applications deemed worthy.

'SOFT' MONEY? That makes it especially hard for young university researchers who depend on NIH money to start careers. As a result, says molecular geneticist Cecilia W. Lo of the University of Pennsylvania: "I think we will lose a whole generation of young scientists."

Ironically, the perceived funding crisis is due in large part to the NIH's own success. Fat budgets have let the agency hand out big bucks to support the explosive growth of fancy university labs. These labs aren't easy to wean. "In expanding biomedical research, we decided to use government money not simply to buy research, but to pay for the researchers' salaries and overhead," explains Bernard D. Davis, a microbiologist at Harvard University. "Universities have become more and more dependent on this 'soft' money."

The drop in awards already is hurting the quality of science, many researchers say. Rather than forging ahead with risky ideas that might fail—and make it hard to get grants renewed—more scientists are picking projects that seem guaranteed to produce results. "If we take a risk and it doesn't pay off, we won't get a second chance at a grant," explains Lo. Things could improve soon. Weary of such complaints, after boosting NIH's budget year after year, the House Appropriations Committee has pointedly told the NIH to aim for at least 6,000 new awards from now on.

In the meantime, the relentless search for money is driving biomedical researchers into the arms of industry, which has been picking up an increasing share of the research tab (chart). That has prompted a lively debate over the direction of biomedical science, and whether the NIH is up to the task of preventing abuses of federal research funds. Chemists and engineers have been working with companies and reaping royalties for decades. But some lawmakers worry that tighter links between health scientists and industry may not be in the public's best interest.

Consider the case of Genentech Inc.'s clot-buster drug, TPA. At least 14 NIH grantees who tested the drug owned stock or held options to buy stock in the South San Francisco biotech company, giving them a powerful financial incentive to demonstrate that TPA wards off heart attacks as advertised. In fact, one of those scientists was the 46-year-old Healy. To her credit, says an investigator for the government operations and human resources subcommitee, "she was the only one to say this looks bad and I won't do it again." Healy declined to be interviewed for this article.

Representative Ted Weiss (D-N. Y.), who heads the subcommittee, has been pressuring the NIH to prevent such conflicts, and the agency is writing proposed rules that could prohibit scientists from holding stock in companies they are doing research for. Yet at the same time, other congressional committees have been pushing s tists closer to compa in an attempt to s the transfer of rese from lab bench to tients' bedsides. "T two policies are on a lision course," says mer NIH Director V gaarden. The Tech ogy Transfer Ac 1986, for example, courages federal searchers to work individual compa Since 1987, NIH scien have formed more 150 of these cooperative arrangem The first licensing agreements these ventures—between Genetic T py Inc. in Gaithersburg, Md., and t py pioneers W. French Anderson, R chael Blaese, and Steven Rosenbe were signed in mid-October.

Anderson is a big fan of the colla tions, believing that they pump needed resources into scientists' la tories. But NIH administrators are sanguine. "Too much emphasis o search that puts money into the po of investigators may warp what the is all about," frets Philip S. Chen associate director for intramural af at the NIH. In fact, directors of se of the NIH's 13 research institutes re that some of the agency's scientists already reluctant to share researc sults because of their possible com cial value.

What the NIH really needs, of co is a savvy director who can nav deftly among the constantly clashin mands of Congress, the biomedica search community, and special int groups ranging from AIDS activis pro-lifers. "NIH is not the institut was 20 years ago," says David loner, vice-president for health affa the University of Florida. "But the director remains the most importan in the world of biomedical research."

Under the circumstances, Healy n be a good catch. Challoner and prominent scientists—including AID neer Anthony S. Fauci—previously drew their names from considerati cause of the salary and the perceived lack of power.

Healy, who is regarded as brigh ambitious, is not a shoo-in. But sh an important ally in her close frien Allan Bromley, the White House sc adviser. If she does get the job, need all the help she can get to ste NIH, and the nation's huge and suc ful biomedical research enterprise, a on course.

By John Carey in Washi

MORE CONFLICTS OF INTEREST?

Industry is paying for more of biomedical R&D, raising concerns that scientists with stakes in such companies may skew results in favor of the company's products

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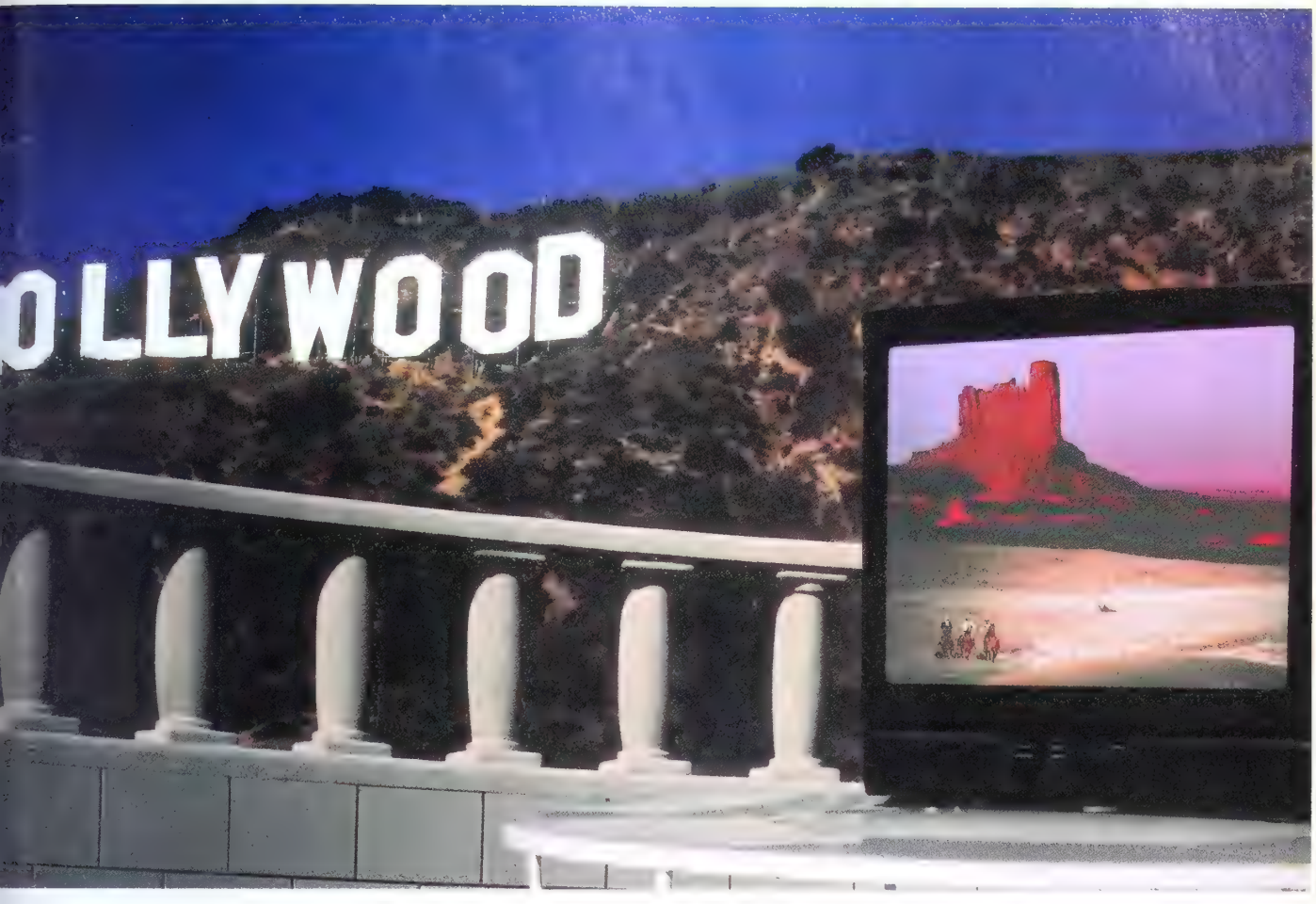

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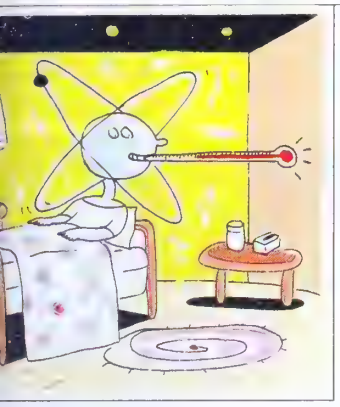

High-speed integrated circuits for computer chips and other gear can contain thin films of materials just a few atoms thick. Scientists often do not have a precise understanding of the special properties of thin films—so they cannot always predict exactly how the materials will behave.

Now, researchers at the University of Roch- r are coming up with clues to one of these riddles. A nique developed by Hani E. Elsayed-Ali, a scientist at the oratory for Laser Energetics, can take the temperature of first few atomic layers of a material. The researchers use ser pulse and an electron gun that, in effect, take a shot of the surface in less than 100 picoseconds, or one- n of one billionth of a second. By analyzing the image, or action pattern, they can determine the temperature. Since heating is a problem in electronics, better understanding ne thermal properties of thin films should aid the develop- t of new high-speed chips and other devices.

G SCIENCE IS DODGING E BUDGET'S SLINGS AND ARROWS

Washington plays a major role in U. S. science and technology—setting directions and providing funds. This , amid the angst over the deficit, Big Science seems to be ing through with only minor wounds. The superconducting rcollider, or SSC, is slated for $243 million in fiscal year . That's $75 million less than the Energy Dept. requested, 11% higher than this year's appropriation. The beleaed space station? NASA is expected to get $1.9 billion, up $1.8 billion, although Congress plans to withhold twoIs of the money until the space agency answers criticisms ne station's design.

ouse and Senate conferees also trimmed Energy's nuclear on program to $275 million. That 15% slice of the budget ed rather than halted development of the next generation nagnetic-fusion reactors. And while Congress scrubbed A's plans to send a person to Mars, this 21st century ect was starting from scratch anyway in 1991. Lawmakers send a signal that they're worried about scientific illiterabosting the National Science Foundation's science educaand human resources budget by 46%, to $322 million. The s total budget is slated to rise 11%, to $2.32 billion.

S JUST LIKE COBALT— LY SAFER

ower plant valves, jet turbine engines, and even surgical staples must be made from metals that are highly resisto wear and corrosion. That usually means cobalt-based s. But cobalt is expensive, and scarce reserves make the dependent on foreign suppliers, mainly in Africa. There's another disadvantage: In the harsh environment of nuclear plants, even tiny amounts of cobalt corrosion from valves can mix with the fuel rods to produce cobalt-60, which emits gamma rays, a cancer risk to plant-maintenance workers.

Researchers at the Electric Power Research Institute (EPRI) in Palo Alto, Calif., have developed a substitute for cobalt alloys. The patented material is called NOREM because it will not emit radiation, which is measured in REMs, a unit of radiation dosage. Based on materials such as iron, chromium, and manganese, NOREM shows slightly better endurance in lab tests than cobalt alloys and welds easily to metal parts.

EPRI plans to test NOREM valves in a plant next year. It has licensed Thermadyne Industries Inc. in St. Louis and ANVAL, a Swedish maker of special metal powders, to produce the material, which should eventually be cheaper than cobalt alloys.

THIS MICROSCOPE HAS A NEW LENS ON LIFE

Nearly a decade after the scanning tunneling microscope (STM) was invented at IBM's Zurich laboratory, the technology continues to open new frontiers. The latest: an STM-derived microscope that will enable scientists to watch chemical processes at the atomic level in living cells.

Ordinary electron microscopes emit powerful beams that damage or destroy biological specimens, but IBM's new device fires a less harmful beam. First-generation STMs have a needle with a superfine point that can trace the contours of individual atoms. The new instrument, developed by a team headed by Hans-Werner Fink of IBM's Zurich lab, uses a similar needle to shoot its electron beam at a specimen.

The beam doesn't penetrate biological samples, as X-rays do—it casts a shadow on a fluorescent-screen detector. Around the shadow's edges is an interference pattern, similar to those that produce holograms. Fink's group is working on computer software to translate the patterns into three-dimensional images for display on a computer screen.

WHAT MAKES NIFTY PIZZA AND WORKS BELOW MINIMUM WAGE?

One big worry in fast-food restaurants is getting enough help. The jobs don't pay much, and there's a shortage of eligible teenagers. Now, Carnegie Mellon University's Center for Human Service Robotics has designed PizzaBot, a robotic arm that can prepare a pizza for the oven in about 3½ minutes. The first day on the job at a Pittsburgh pizzeria, the prototype made 50 pies.

The robot was developed by a team headed by K. G. Engelhardt, director of CMU's center and an expert in designing robots to help the elderly and disabled. She believes that PizzaBot, which may sell for less than $75,000, can give handicapped people the opportunity to own or manage shops. The robot responds to voice instructions, and to assist the hearing-impaired, the order is repeated on a video monitor using simulated lips. CMU is working on software that will automatically update inventory and bookkeeping with each pizza order.

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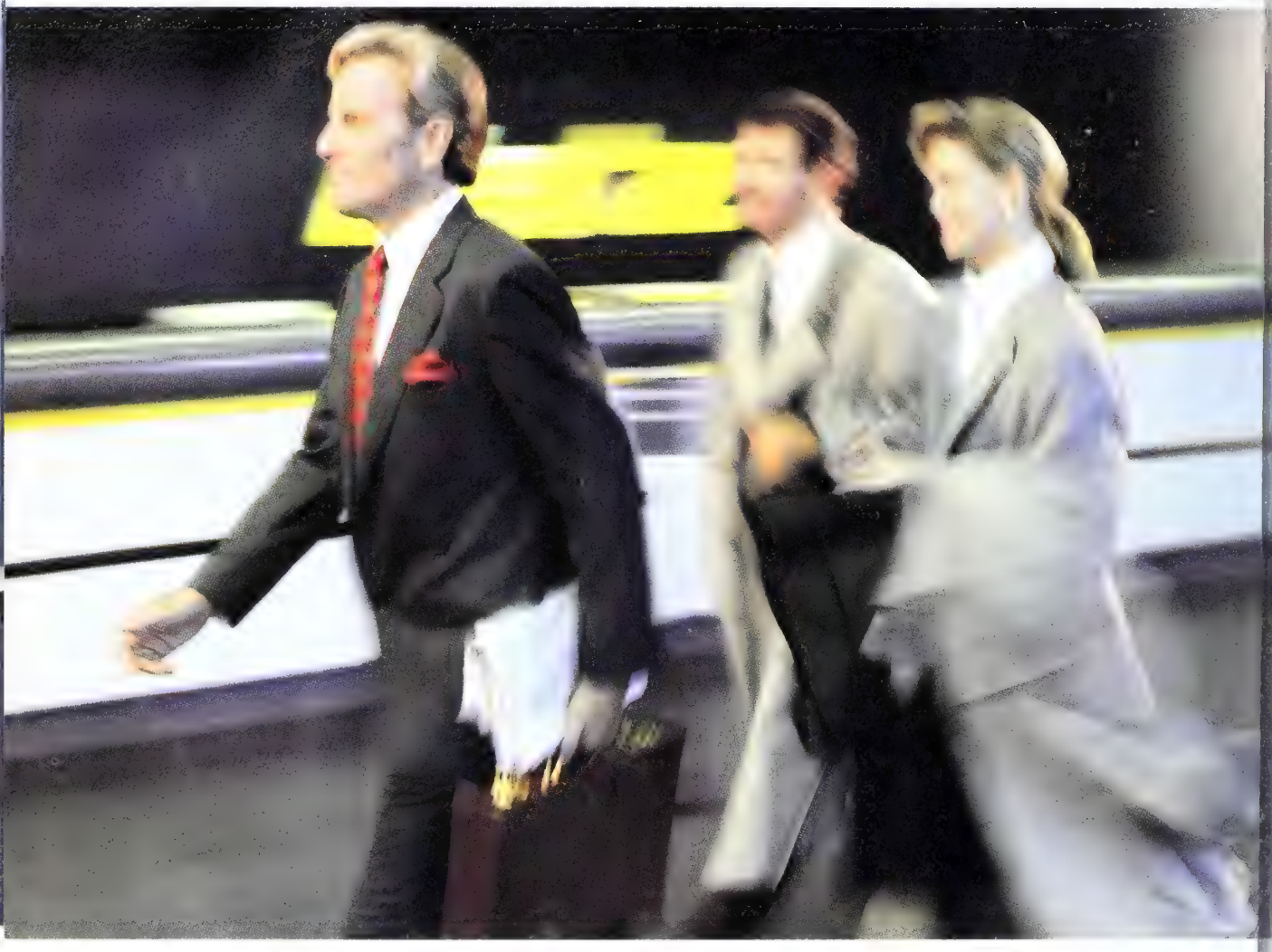

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HE GARBO MYSTIQUE OES ON THE BLOCK

theby's is marketing her estate—very discreetly

Garbo's paintings include a Bonnard still life and three Renoirs, but most of the collection would not qualify as great art

Market Garbo? A cinch. Just think what Sotheby's might dc to sell the estate of the enig- ic actress, who died last April leav- a collection of fine paintings, Euro- n furniture, and decorative art works th more than $20 million. There ld be posh cocktail parties for poten- buyers, a lavish advertising cam- gn, videos displaying the collection, enings of Garbo films, tours of the w York apartment where she lived for 40 years, and articles describing the life she always refused to share with an intrigued public. With a few deft touches, Sotheby's could turn the Greta Garbo auction into a real media event.

Instead, Garbo is proving as elusive in death as she was in life: Sotheby's will auction her estate Nov. 13-15 with minimal fuss. It's using the sale catalog—an elegant hard-bound book designed to be a collector's item—as the key marketing tool. It will, of course, exhibit the collection in New York starting Nov. 9, and that will generate press coverage. The six best paintings are also traveling to Tokyo and Paris. But Sotheby's only other marketing effort is a small benefit auction of 30 Garbo photographs, taken by Cecil Beaton, on Nov. 11. The beneficiaries, chosen by Garbo's heirs, include the Rogosin Institute, a kidney center where she was treated.

This low-key effort isn't the surest route to success. "It's easier to do everything, rather than less, because you take a risk doing less," says Diana D. Brooks, president and chief executive of Sotheby's North America. The goal, after all, is to reach every potential bidder.

Sotheby's must have been sorely tempted to do more for another reason: With the art market shaky—indeed, contracting for the first time in eight years—it could have capitalized on Garbo's glamour. "Celebrity sales bring new people into the market," notes auctioneer William J. Doyle, chairman of William Doyle Galleries Inc. Especially well-publicized ones. Sotheby's extravagant campaign for the sale of Andy Warhol's vast estate in 1988, for example, attracted hordes of new buyers: They bought 35% of the lots, and many have since become major Sotheby's clients. They also helped bid up prices to staggering levels: One fan paid $23,000 for two ordinary cookie jars and salt-and-pepper shakers estimated at $100 to $150. Such spending enthusiasm can gather momentum and even spill over to other sales.

'HIGH ROAD.' Yet preserving Garbo's mystique has already passed one test: It won the sale for Sotheby's from Garbo's niece Gray Reisfield over a plan from rival Christie's. "Sotheby's primary focus was on the Greta Garbo collection, not Greta Garbo as an actress," says Theodore A. Kurz, Reisfield's lawyer. "Sotheby's took the high road all the way." Christie's, which won't disclose details of its strategy, offered a traditional campaign: ads, more paintings going to more cities, and more publicity.

Sotheby's proposal had two other winning points: It planned to sell most of Garbo's items in one sale during the biggest week of the fall auction season, even though that meant interrupting its major paintings auctions to sell furniture, porcelain, and decorative items. Christie's had spread the items out in several sales. And Sotheby's offered Reisfield the rights to several Garbo photographs by Beaton that it owns.

Mostly, though, it promised to produce a special catalog. Printed on very heavy paper and slip-cased, the catalog used up "well over 50%" of the sale's budget, Brooks says—though she won't say how

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much. Beyond pictures of the proffer lots, it offers a few glimpses of Garb apartment and contains brief remin cences of her by family and friends. "V tried to pick up on those things th personified Greta Garbo," Brooks says down to reproducing her bedroom dr ery fabric for the slip-case cover.

Sotheby's did throw in a pinch of gl several Garbo photos, some previou unpublished, a roster of her films, a stills from such notable ones as *An Karenina* and *Ninotchka*. Kurz, he of trusts and estates at attorneys De voise & Plimpton, says "it's the highe quality [auction] catalog I've ever see

It may be one of the most widely culated, too. Sotheby's sent the book subscribers to its French furniture a Impressionist painting catalogs, then fered it, for $75, to 120,000 others direct mail. In all, Sotheby's hopes to up to 33,000 catalogs. By contrast, it s 11,000 Warhol catalogs; a normal fu ture sale catalog would reach 4,000 5,000. Word-of-mouth—especially amo decorators and their clients—sho reach more potential bidders.

Sotheby's seems to be hitting mark. "People are very excited ab the sale—we're constantly having peo mention it to us," says Gerald G. Stiel president of Rosenberg & Stiebel, a N York dealer that sold to Garbo. "Dec tors are talking about it," confirms tiques dealer Florence de Dampierre, thor of *The Decorator*. Doyle predi "They'll have 20,000 people physica view the collection—and that's a lot.

A CERTAIN ERA. But will they bid, or j look? The main value of Garbo's est lies in the fine paintings, which incl three Renoirs and a Bonnard. Althou none is a masterpiece, all should sell ily. Tokyo dealer Hideto Kobayashi s the Japanese are interested: "Many want to buy just because the painti belonged to Garbo." As for the ot lots, Dampierre believes Sotheby's winners, in part because "her apartm is something of an era, a reminiscenc a certain time in New York right a the war, that people are very interes in now." These items are pretty, if great art. Some are estimated—for trinsic value—as low as $100.

If the pundits are right, though, n ing of Garbo's will fetch that little. "I ple will pay for her," says Doyle, often sells celebrity memorabilia. they estimated it right, it'll bring do what they estimate." Sotheby's co may, then, be the best one. Takin high profile, in today's jittery art m ket, might have heightened expectati too much. And, no doubt, subtle is way Garbo would have preferred.

By Judith H. Dobrzynski in New Y

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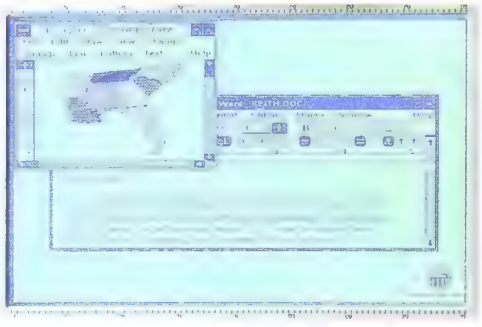

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CANDIDATES

THE BROWN TO WATCH IN CALIFORNIA

If Kathleen wins the treasurer's job, it may be just the beginning

Politics began at an early age for Kathleen Brown, and she wasn't crazy about it. In grammar school, she routinely got pulled from classes to tour the state in the backseat of a blue Oldsmobile while her father, California Governor Edmund G. "Pat" Brown, pressed the flesh with his constituents. In junior high school, she so objected to her regular police escort that she made the officers drop her off three blocks away so she could walk in like all the other students. All the attention "infused me with a desire to never get into politics," she recalls.

So much for youthful vows. At 29, she won a seat on the Los Angeles school board. And now, after moving to New York and working as a bond lawyer, Brown, 45, has returned to California to carry on the family tradition in state politics. She's running for treasurer. With only days to go before the Nov. 6 election, she's locked in a tight race with career bureaucrat Thomas Hayes. According to a poll released on Oct. 15, she had 38% of the vote vs. 33% for Hayes and 29% undecided.

'NO LIMIT.' Treasurer isn't the most glamorous job around. But with control over the state's $22 billion investment portfolio, plus board seats on its gigantic pension funds, the job carries great sway with Corporate America. And it can become a high-powered political pulpit. Jesse Unruh, treasurer from 1974 until his death in 1987, used the post to become a dominant political figure in the state. Some Brown supporters see the job as a stepping stone for their candidate. "If Kathleen Brown gets elected treasurer, there's really no limit to how far she could go," says Jane Danowitz, executive director of the Washington-based Women's Campaign Fund.

Brown's greatest asset in the race also happens to be her greatest liability: the Brown name. While many voters think of her father fondly, older brother Jerry is still widely known as "Governor Moonbeam"—an unpredictable two-term executive who had a penchant for iconoclastic ideas. Hayes, who was appointed to the treasurer's job when Unruh died, is playing off that image. His media consultant, Roger Ailes, has taken to calling Brown "Sister Moonbeam."

While the two Browns share an unmistakable physical resemblance, their personalities are miles apart. Jerry, now state Democratic Party chairman, can be cold and aloof. Kathleen is more like her g garious father. Yet the "Sister Mo beam" strategy has put Brown on the fensive. "I'm proud to be a Brown," says, and asks that she not be held resp sible for Jerry's mistakes—or for t matter her father's.

The Hayes campaign paints its ca date as a competent number-cruncher turn, Brown accuses her opponent of ing plodding and blasts him for sitting a $12 billion backlog of authorized bon She also promises to be an activist treas er, urging state pension funds to denou companies whose policies she disagr with. Telegenic and comfortable in fron a camera, she easily handled Hayes their two debates. "She has televis smarts," says her husband, Van Gor Sauter, former president of News. "She instinctively lo into the camera."

BACK INTO POLITICS. Sauter Brown met while she was on Board of Education. Then ge al manager of the Los Ang CBS affiliate, he arranged a after seeing her on televis They were married in 1980 soon moved to New York, wh Brown went to law school then joined the old-line O'D veny & Myers law firm, w had California as one of its ents. The idea of running treasurer came to her in N York. "I kept seeing Jesse ruh's name at the bottom o the bond documents," she s "It clicked for me that here a job for which I had the tec cal skills."

She and Sauter returned Los Angeles in 1987, after was ousted in a CBS manage shakeup. Getting back into tics was a snap. Within mon Los Angeles Mayor Tom Bra appointed her to the city's B of Public Works. Still, Bro showing in the polls has D crats thinking back to the primary, when Wesley Sand her virtually unknown oppon got a disturbing 35% of the v "That one should have be slam dunk," says political co tant Joe Cerrell.

Brown says she isn't wor After a lifetime of watching ups and downs of her fath and brother's careers, s ready for more public ser The only question is whether ifornians are ready to bet o other Brown.

By Eric Schine in Los An

THE CANDIDATE

Current job
Running full-time for California treasurer

Previous career
Commissioner of Los Angeles Board of Public Works (1987-89). Bond attorney (1985-87) in New York and Los Angeles. Elected to Los Angeles Board of Education (1975-80)

Education
Fordham University Law School, 1985; BA, history, Stanford University, 1969

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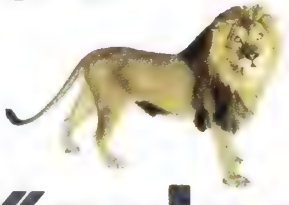

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Nicknamed "Lady Lindy," Amelia Earhart was not only the first woman to fly solo across the Atlantic, she held women's speed and distance records that earned her place as the first woman to receive the Distinguished Flying Cross.

As a nurse during World War I, Earhart developed an early concern for her fellow man that helped her champion human rights around the world. Her memorable accomplishments in the air moved her to pen three best-selling books.

She served as aviation editor for *Cosmopolitan*. She designed and marketed a line of luggage and founded two successful airlines. An adm poet, she inspired two popular songs even a foxtrot

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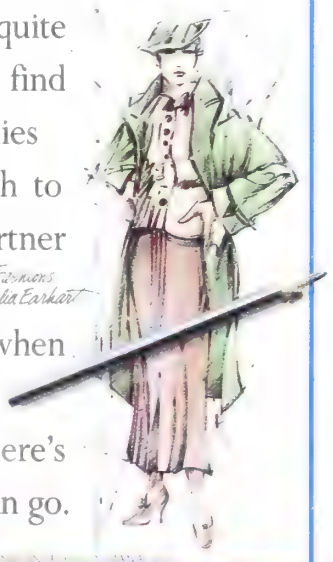

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Telecommunications

1,001 THINGS YOU CAN DO WITH YOUR OWN 900 LINE

Earlier this year, Guilford and David Brett, a father/son venture capitalist team from Vancouver, B. C., began marketing a new investment simulation game called "Winning at Wall Street." Players compete for a real $25,000 cash prize by seeing who can turn in the best-performing make-believe portfolio after three months. The game is built around a 900 phone number, which players dial to execute trades. The charge of $1.50 for the first minute, 75¢ for each one thereafter seems low enough to callers. Yet it's high enough for the sponsors to make a buck.

When it comes to pay-per-call 900 service, no venture is too small to benefit. Consultants, travel agents, and doctors are only a few of the entrepreneurs and professionals finding they can sell information and services over 900 telephone numbers. Even Philadelphia Eagles coach Buddy Ryan has an angle. He broadcasts his own weekly pregame and postgame shows over a 900 wire.

COSTLY ADVICE. Many 900 exchanges are created to be pure profit-making ventures. But you can also choose pay-per-call over regular or toll-free lines to help pay for costly services. Take ButtonWare, a tiny software company in Bellevue, Wash. It used to offer free technical assistance on a regular phone line but switched to a $1-a-minute 900 number last January after staffing costs became too burdensome. "We thought every one of our customers would hate us because we were charging them for information we offered for free," says Dee Dee Walsh, marketing communications manager. But since the company could afford to hire more operators and service improved, no one complained, she says.

If you have an idea for a 900 line, start by contac the long-distance phone c panies. They will work you directly if you prefe buy call-processing equipn and manage your line house. Or they can refer to an independent service reau that already owns necessary equipment and handle programming for

BUYER'S MARKET. You car up a 900 line through A MCI, U. S. Sprint, and sphere Communication small long-distance car based in Oakbrook Ter Ill. Local phone compa also offer plans which cheaper but more limited cific Bell's California 900 example, accepts only from within the state.

The market is awash in counts and fee waivers now, and each carrier p its services differently. pays to shop around. Gen ly, you will pay a onetime

COMPARING TOLL-FREE SERVICE TO PAY-PER-CALL

	800 number	900 number
Onetime set-up charge	$266-$2,000	$0-1,500
Monthly service charge	$0-1,500	$0-1,000
Avg. per-minute charge to sponsor*	20¢	50¢
Avg. per-minute charge to caller	None	$1
Potential revenues	None	Varies by call volume, length

* Includes fees for long-distance service, billing, and collection

DATA: LINK RESOURCES INC.

fee, a monthly service
ge, a per-minute charge
ach call, and other inci-
ls to cover billing and
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rvice and call processing
city you need. For exam-
AT&T MultiQuest has an
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ough that doesn't mean
call will get through at
. The sponsor's cost: 30¢
he first minute, 25¢ each
ional. A 7,500-call option
for 6¢ per call more.
that simply count calls
lay recorded messages
lower rates.
e major expense comes not from the long-distance charges, but from getting the word out about your 900 number. Stephen Reynolds, voice information services analyst for LINK Resources, a telecommunications consulting firm, estimates the expense breakdown for a typical 900 line might be 40% for advertising, 30% for billing, 23% for long-distance charges, and 7% for setting up your program. A line where the average call lasts three minutes and costs $3.50 would need about 6,000 calls a month to break even.

Although you get to set the public cost per call, the sky is not the limit. MCI allows businesses to charge callers a maximum of $5 a minute or $25 a call. AT&T's ceiling is $10 per minute and $50 per call. Ceilings aside, a company has to consider at what level its prices will trigger consumer resistance. As a rule, people seem willing to pay about $5 per call for simple recorded information and up to $20 for live professional advice.

HANG UP OR PAY. Nor are the lines completely open when it comes to type of service. Each carrier has guidelines governing such issues as program content and advertising to protect against fraud—and all are beefing up their rules. MCI, for example, plans to require a recorded preamble giving callers a chance to hang up before getting billed, and to set a price cap on children's programs.

For $9.95 per call, you can dial *InfoText* magazine's 900 INFOTEXT for a free subscription and help in setting up a line. W. Brooks McCarty, who operates a service bureau out of Palm Springs, Calif., offers advice over—what else?—his 900 USA-INFO line for a reasonable per-minute rate. You can also contact the National Association for Information Services at 202 833-2545. If you're looking for a new revenue source—or even a way to cut costs—a 900 line might be a good call. *Amy Dunkin*

Credit Cards

HEN KNAVES AY WITH EDIT CARDS

m a victim of credit-card raud. Anyone who has een through this madden-nodern crime can empa- instantly with that state-. For those who haven't, cautionary tale may save nours of aggravation.
ad taken all the precau- credit-card companies you about. I checked my to confirm the charges mine. I cut up expired . When I was mugged r this year, I immediate-ported the cards stolen, a list I kept separately y apartment.
ecame aware of my cur-mess by accident. In late ust, I received a notice I had been turned down Visa card because I had quent bills. That was because my payments current and I hadn't ap-for a Visa card.
y or so later, I ved checks for a erCard I hadn't l for, either.
T WORRY. Pan-, I called the number listed. credit rep told there was a 0 balance on the card. I insisted I hadn't even applied for it. Indeed, the Social Security number, phone number, and other data were incorrect. "Don't worry," she said. "This won't show up on your credit rating."

I asked if there was any central place where I could report that people were applying for cards in my name. She said no, but when I persisted, she gave me numbers for Visa regional processing centers in Baltimore and San Francisco. The Visa reps I reached were understanding but unhelpful. Because each bank issues its own Visas or MasterCards, there is no way to notify all banks of a problem. When I expressed frustration, one rep suggested I make a crusade of the issue and appear on *Donahue*.

I contacted my landlord to see if anyone had had access to my apartment. He told me then that the mailboxes in my small apartment complex had been jimmied open a few times. Other tenants in the building also complained of phony cards being issued or replacement cards stolen through the mail. Among us, the charges ran to about $26,000—part of the nearly $1 billion in fraudulent credit-card charges made each year.

Then began the task of repairing my bruised credit rating (it was affected, after all). I called major credit agencies Equifax-Credit Bureau and TRW Information Services and made appointments to see a representative. The Equifax rep gave me some advice: Put everything in writing, send correspondence by certified mail, and check back in three weeks to be sure the charges were taken off my file. The message was that the burden was on me to ensure that this problem did not damage my credit status. I also learned—again, contrary to previous advice—that consumers can centrally report fraud activity by contacting the bureaus' local offices.

A BUST. On Oct. 12, police and postal inspectors arrested suspects at gunpoint outside my apartment building after video surveillance caught them mailbox-tampering. Several affidavits and weeks later, I am still corresponding with various credit-card companies to clear up the situation. And I've learned a bit more about protecting myself (box).

By law, you are liable only for the first $50 per card if you report the theft. But these scams' costs get passed on to consumers through higher prices and interest rates. We are all victims of credit-card fraud in the end. *Gail DeGeorge*

PROTECTING YOURSELF

- Remember the obvious: Tear up carbons. Don't give card numbers to unsolicited callers. Check statements for any mysterious charges
- If a statement doesn't arrive, contact your bank. Someone may have filched it and then called to have a "replacement" sent to a new address
- Request to have new or replacement cards sent via a private carrier who requires a signature and has a tracer number
- Contact your local credit bureaus to place a statement in your file that you be notified personally before any cards are issued

MARC E. COHEN

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half a century ago, J.P. Morgan, Jr., said, "The clients' belief in the integrity of our advice is our best possession."

Potables

SOME SWEET DEALS ON DRY WHITE WINES

For many white-wine lovers, California's chardonnays have become the varietal of choice. Last year's harvest was the biggest ever, and legions of 1989 releases are now crowding store shelves—with more on the way. Because of the surplus, wineries aren't raising prices the usual 10% to 20% for new vintages, says Paul Warren, buyer for The Wine House in West Los Angeles: "There are just too many good inexpensive wines out there." So with many priced below $10, this is a fine time to stock up on, or to try out, chardonnays.

A good chardonnay should be crisp and light, yet substantial enough to reveal fruity undertones. One that has many tongues wagging is Hess Select California Chardonnay. Tom McKnew, wine manager of Calvert Woodley, a Washington (D. C.) wine store, feels the 1989 vintage may well surpass the 1988—and the 1988 was hailed by *The Wine Spectator* as one of the year's best. Hess sells at the upper end of the price spectrum, for $9 a bottle.

OFF BRANDS. Consumers can also find values in "second brand" chardonnays from premium wineries, such as Hawk Crest. Produced by prestigious Napa Valley vintner Warren Winiarski, it's made with grapes from Mendocino County rather than the pricier Napa-grown grapes that Winiarski uses for his $25 reserve chardonnays. So he can afford to sell Hawk Crest for $9.

Wineries that buy bulk wine and blend it under their own label are also turning out some good products. well-known brands remain most popular consumers. Tim Bi shaw, a salesman at M flower Wines & Spirit Washington, D. C., s Fetzer Vineyards' Sun Chardonnay is popu with political partiers tight budgets. Priced $6.50, it's not aged wood, so it has a disti ly fruity flavor wit hint of apple and le Kendall-Jackson's V ner's Reserve ($8), in trast, is barrel-aged months to produce a er flavor.

Prices may run 10 15% higher on the Coast than on the W Even so, these Califo chardonnays will only a few dollars n than a six-pack of good Reason enough for the crop to get a thorough ing. *Laura Ho*

A BUMPER CROP OF CHARDONNAY

Smart Money

THE SAFE HARBOR OF MORTGAGE-BACKED BONDS

Hard to believe, perhaps, but not hard to find these days: a conservative, long-term investment yielding better than 10%. Those are attributes of Z-CMOs, zero-coupon collateralized mortgage obligations—which financial planners and bond brokers are promoting as ideal for the middle-aged investor looking to retire in 10 or 15 years.

Once available chiefly to institutions, CMOs began to be widely offered in the late 1980s. Now, they're growing "faster than any other investment security," says Jim Dillahunty of Fixed Income Securities in San Diego.

PAYOUT PERIODS. Like Ginnie Maes, Fannie Maes, or Freddie Macs, a CMO is a security backed by a big pool of residential mortgages. But those better-known mortgage-based bonds provide their monthly income over either 15 years or 30 years. The wide diversity of mortgages in a CMO pool can let you choose a payout over one of several different periods—such as 3, 7, 12, or 20 years.

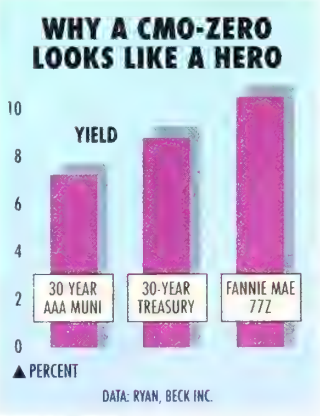
Typically, interest rates increase the longer you put off the full payout and usually run 0.5 to 1.5 percentage points more than on comparable Treasury issues. The highest yields, 10.5% or more, come with the longer-term CMOs, the zeros. Like other zero-coupon investments, they don't provide current income. But neither do they pay principal and interest only in a lump sum at maturity. Instead, they accumulate interest for roughly half their life, then pay out interest and principal monthly during the second half.

"They beat regular bonds because interest compounds monthly, not semiannually," says financial planner Gary Goldberg in Suffern, N. Y. Say a 45-year-old investor rolls $85,000 over into a tax-deferred IRA, buying a CMO such as a Fannie Mae 77Z, which begins paying out in 2004 (box). Sold at a discount, it has a face value of $100,000 and a 9.5% coupon that, with compounding, makes for a 10.5% yield. The $85,000 grows to about $410,000 in 14 years. Then, the Z-CMO pays roughly $80,000 the first year, $75,000 the next, and so on, until a final payment of about $12,000 when the vestor is 75 and the m gage pool is drained dry.

Typically, sales charg eat up about 3% of you CMO investment ($10,000 $25,000 minimum). There' secondary market if y want to sell before matur but prevailing interest ra will affect the price you g

GUARANTEES. The range maturities in a Z-CMO cuts the risk that your b will be paid off early homeowners refinance to low rates. Both Fannie M and Freddie Mac, which h gotten into the Z-CMO guarantee payouts. M Wall Street firms' pools clude those agencies' m gages or Ginnie Maes, wh are as safe as Treas bonds. And some issu have insurance to safegu payments.

"CMOs are a little comp and not everyone has a c idea of how they work," s Dennis Loudon at R Beck, a bond dealer in W Orange, N. J. "But in th uncertain times, people live with that for a s 10%." *Don D*



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"Just sitting in Park Avenue's ro interior is pleasin
—*Car and Driver*

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OR THE '90S.

highway-speed passing seemed effortless.”

—Automobile Magazine

The tuned-port injection 3800 V6 produces 170 horsepower.

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SAMSUNG

ERIOR COURT: ADVANCED PLAY INVOLVES HITTING ONE BALL OVER ANOTHER AND TACTICS THAT LEAVE OPPONENTS WITHOUT A CLEAR SHOT

Leisure

ITH MALLETS AFORETHOUGHT: IE COMEBACK OF CROQUET

ike many doting dads, John Cunningham used to play croquet with his daughters at his Nan-ket summer home. Then, 986, a business colleague oduced him to competitive uet at a local country . Now, the 47-year-old rman of Cunningham & a high-tech consulting , signs business deals a brisk match. And he his wife seek out vacation s with croquet courts.

oquet, that erstwhile sta-f the backyard barbecue, xperiencing a comeback. enaissance is buoyed by utives—particularly golf onados who have ped clubs for mallets. ing summer nights, you go to Central Park and a who's who of Wall t players," says Mike ons, vice-president of Es-auder and the U. S. Cro-Assn.'s 1990 National Se-Champion. Gibbons and other fans say they prefer croquet to golf for several reasons. It's less physically strenuous. Men and women can play on an equal par. And the matches are shorter.

Companies are also taking up croquet. At the Meadowoods Resort in St. Helena, Calif., intramural matches were on the agenda during senior management meetings recently held by Levi Strauss and Transamerica. Charities are turning to croquet as a fund-raiser: The North Carolina Nature Conservancy recently raised over $3,000 from a tournament in Cashiers, N. C., that drew 14 players and more than 1,000 spectators.

WET BAR. Charities go for croquet because of its appeal to the well-heeled. The USCA says the average income of its members is $125,000. Most backyard courts will cost $10,000 to build and $3,000 a year to maintain—at least. Russell Aitken, a retired artist, spent more than $35,000 on a court at his Newport (R. I.) residence, complete with a state-of-the-art drainage system, imported grass, and a stone temple equipped with a wet bar and telephone.

Most folks, however, choose to join one of the more than 300 clubs in 48 states, up from just five in 1977. Not that the proliferation of clubs has compromised croquet's stately ambiance. Courts are landscaped with flowers and shrubbery. Players dress in requisite white linen oufits, as do most spectators. In California, wine is often served. It is not surprising, then, that croquet fever hasn't trickled down to the masses.

WICKET PAIR: MIKE AND CYNTHIA GIBBONS

JUMP SHOT. But it is acquiring a competitive zeal—something hard to believe for those who see croquet as a sedate pastime. "I would have thought that all who played were over 70," says Bill Duncan, 50, chairman of First American Bank of New York. But he learned otherwise when a friend hooked him and his wife. Now, the Duncans spend winters traveling to compete in tournaments, where players have to do a lot more than just knock four balls through six wickets. They must master such strokes as the jump shot—hitting one ball over another—and tactics leaving opponents with no good shot.

For those who prefer not to drop $10,000 building a personal court, some resorts are luring vacationers with introductory packages. Guests at Florida's Boca Raton Resort & Club can rent the court and equipment for $5 apiece per 30 minutes; the Phoenician Resort in Scottsdale, Ariz., allows guests to play for free. As for equipment, there are plenty of croquet sets for $25 at the local toy store. But if you get hooked on the game, you may find that only a $2,500 set from Abercrombie & Fitch will do. *Irene Recio*

Worth Noting

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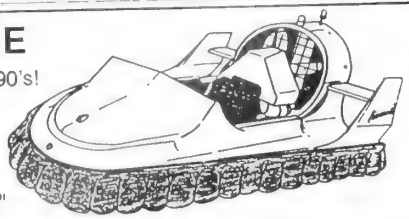

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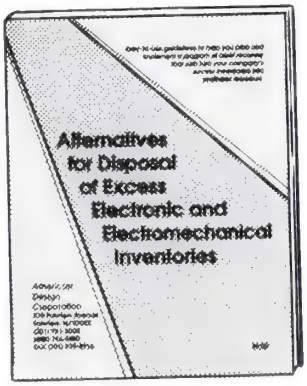

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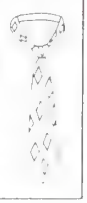

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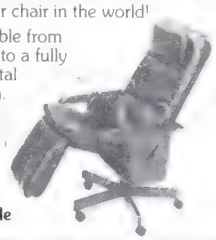

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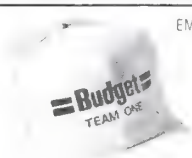

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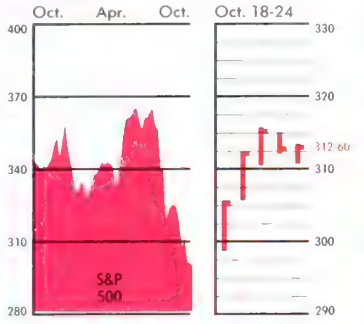
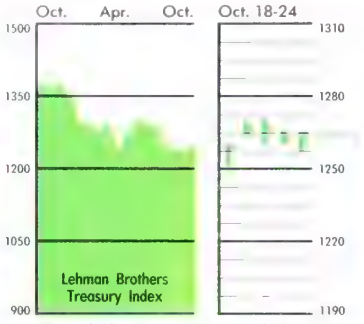
dropped a notch. The equity
celebrated, too, with the
ndustrials climbing out from
2400 to northward of
for a 4.9% gain. Tokyo
boomed, too, up 4.3%.
he battered dollar rallied.

STOCKS



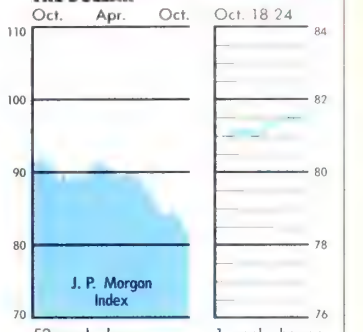
52-week change **–8.7%** | 1-week change **– 4.6%**

BONDS



52-week change **–7.8%** | 1-week change **– 0.9%**

THE DOLLAR



52-week change **–10.8%** | 1-week change **+ 0.5%**

ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
JONES INDUSTRIALS	2504.2	4.9	–5.6
OMPANIES (Russell 1000)	161.0	4.5	–10.8
. COMPANIES (Russell 2000)	122.3	2.3	–28.2
OMPANIES (Russell 3000)	169.9	4.4	–11.9

GN STOCKS	Latest	% change (local currency) Week	52-week
ON (FINANCIAL TIMES 100)	2110.5	2.1	–2.4
(NIKKEI INDEX)	24,876.9	4.3	–31.7
NTO (TSE COMPOSITE)	3122.5	3.3	–20.1

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.5%	7.4%	7.8%
30-YEAR TREASURY BOND YIELD	8.8%	8.9%	7.9%
S&P 500 DIVIDEND YIELD	3.8%	4.0%	3.2%
S&P 500 PRICE/EARNINGS RATIO	13.8	13.1	13.8

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	338.5	339.3	Negative
Stocks above 26-week moving average	14.1%	10.7%	Positive
Speculative sentiment: Put/call ratio	0.46	0.77	Positive
Insider sentiment: Vickers sell/buy ratio	0.52	0.58	Positive

DUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

-WEEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
ERTAINMENT	18.7	–21.6	MCA	70.7	–8.7	58⅞
T DRINKS	16.1	24.9	COCA-COLA	17.6	27.6	45⅛
LINES	14.0	–34.5	AMR	20.6	–31.9	48¼
CKING	12.9	–27.9	ROADWAY SERVICES	18.9	–12.0	33
SEHOLD PRODUCTS	12.8	18.7	COLGATE PALMOLIVE	14.8	3.1	66

-WEEK LAGGARDS	% change 4-week	52-week	Weakest stock in group	% change 4-week	52-week	Price
D MINING	–20.0	–4.8	PLACER DOME	–23.0	–10.2	14¼
AND GAS DRILLING	–16.9	15.7	HELMERICH & PAYNE	–21.7	–9.6	25¾
SONAL LOANS	–16.6	–48.3	HOUSEHOLD INTERNATIONAL	–25.2	–60.3	22⅝
INGS AND LOANS	–13.7	–43.8	GREAT WESTERN FINANCIAL	–15.6	–53.7	10⅛
L ESTATE INVESTMENT TRUSTS	–13.5	–43.3	MONY REAL ESTATE INVESTORS	–28.6	–70.1	2½

UTUAL FUNDS

MORNINGSTAR INC

ERS

eek total return	%
PAN	10.6
MURA PACIFIC BASIN	9.4
ANCIAL STRATEGIC EUROPEAN	9.4

ek total return	%
UITY STRATEGIES	31.8
ELITY SELECT BIOTECHNOLOGY	28.2
ELITY SELECT ENERGY SERVICE	23.2

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–31.4
STRATEGIC GOLD/MINERALS	–18.3
EQUITY STRATEGIES	–16.7

52-week total return	%
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–50.6
PRUDENT SPECULATOR LEVERAGED	–50.4
WASHINGTON AREA GROWTH	–43.5

LATIVE PORTFOLIOS

DATA RESOURCES INC

r amounts
sent the present
of $10,000
ted one year
n each portfolio

tages indicate
ay total returns

Money market fund	Gold	Treasury bonds	Foreign stocks	U. S. stocks
$10,693	**$10,164**	**$9,970**	**$9,312**	**$9,194**
+0.14%	+1.89%	+1.59%	+5.32%	+4.50%

on this page are as of market close Wednesday, Oct. 24, 1990, unless otherwise indicated. groups include S&P 500 companies only; performance and share prices are as of market close Oct. 23. Mutual fund returns are as of Oct. 19. Relative portfolios are valued as of Oct. 23. A more detailed explanation of this page is available on request.

DON'T SHORT-CIRCUIT AUTOMATED TRADING

Technological change often poses great risks for aging institutions—they must adapt or perish. That's the danger facing the nation's stock exchanges and regulatory authorities. Increasingly, institutional traders are bypassing the New York Stock Exchange, as well as the American Stock Exchange and the over-the-counter system. They are trading actively in the so-called fourth market, automated-trading systems such as Crossing Network and POSIT operated by private vendors. Free of the cumbersome overhead—and tradition—of the exchanges, these systems allow institutional investors to trade big blocks of stocks more cheaply than they could through the older markets, and usually without causing sharp price swings.

The Securities & Exchange Commission has been fostering the growth of these trading back-channels by exempting them during their formative years from many of the rules governing traditional exchanges. That makes sense because the large professional traders using these off-exchange systems are sophisticated institutional investors who have the financial muscle to get the information they need and don't require the same protection as small investors. The Eurobond market, which caters to many of these same big investors, works perfectly well without any regulation at all.

Today, less than 60% of the volume traded in shares listed on the NYSE is handled on the Big Board. With the exchanges' market eroding, it's no surprise that they are trying to rein in these new competitors. Already, some exchanges have begun contesting the SEC's exemptions for these systems, which the exchanges rightly claim put them at a competitive disadvantage. In a suit filed by the Chicago options pits, for instance, the SEC soon will have to defend in court its approval of an innovative trading system developed by Delta Government Options Corp., which handles trading in options for government securities.

Some regulatory reform may be needed, but the exchanges mustn't be allowed to impede the development of these private trading systems. Using innovative technology, the off-board market gives investors services and efficiency they can't get from the exchanges. These upstarts may disrupt cozy Wall Street arrangements, but that's no reason for the SEC to turn back the clock.

A FRESH START ON CLEANING UP THE AIR

In the 20 years since the 1970 Clean Air Act, the nation's efforts to clean the air we breathe have been halfhearted, with all-too-predictable results. Though much progress has been made, toxic emissions have spun out of control and threaten our health. Meanwhile, urban growth and an increase in driving have more than offset cuts in tailpipe emissions and thwarted efforts to rid cities of smog.

The clean-air legislation about to become law provides opportunity to improve this lackluster record. In many wa the new law is innovative and gives industry more flexibil than it has had in the past to comply with environmen restrictions (page 50). The tough acid-rain curbs set s goals but allow industry to choose how to meet them. novel system of buying and selling pollution "credits" v help the worst polluters finance their cleanup efforts. T plan to cut cancer-causing and other toxic emissions ab dons target-emissions standards: Industries would need o to use the best available technology to slash smokesta pollutants. That's a key change from previous regulatio which used assessments of the health risks of various c taminants to set emissions standards, a tortuous proc that spawned years of haggling over each regulation.

The budget of the new Environmental Protection Agen whose staff was cut back in the Reagan years, must significantly increased if the new law is to provide needed bite. And both government regulators and busin must resist lapsing back into old habits. The EPA must write rules so tightly that they leave industry with li flexibility to devise cost-effective means of compliance. A industry has to bring more to the table than naysaying the EPA attempts to operate under the new law.

THE NIH NEEDS A LEADER— AND RIGHT AWAY

The National Institutes of Health is the prime rea the U. S. biotech industry is second to none. From Bethesda (Md.) laboratories have come discovery a crucial discovery, from finding innovative cancer treatm to understanding the links between genes and disease. In role as a funding agency for academic scientists, it created the world's largest and most productive biome research establishment, which in turn has spawned a co copia of new drugs and other products.

Recently, however, this proud institution has begu slide. In part, it has been victimized by its own succes building up U. S. health science: Top young scientists now find equally prestigious positions elsewhere. But lo federal salaries and perks, an increasing politicizatio science—starkly illustrated by an Administration ba federally funded research using fetal tissue—and lin funds are chipping away at NIH power, influence, and im A half-dozen prominent scientists have backed away the directorship, which has been open for 15 months.

Despite cries of a funding crisis in biomedical rese the NIH probably doesn't need a huge increase in bu But it does need a strong director who can sweep awa petty hassles that plague in-house scientists—and get research from the $6.5 billion that the NIH is spendi support academic science. The Health & Human Ser Dept., which oversees the agency, has finally found an and willing candidate for NIH director in cardiologist B dine P. Healy. We urge the White House to stop dith and nominate her before the NIH slides from excelle merely good.

November 12

ICON
REED'S STRATEGY
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PERSONAL BUSINESS: HOW TO SAVE ON YOU

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BusinessWeek

NOVEMBER 12, 1990 A McGRAW-HILL PUBLICATION $2.00

MEXICO

A NEW ECONOMIC ERA

A rush to free trade will reshuffle jobs and factories — creating a new North American economy

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For over a quarter century, the Porsche 911 has been a hallmark of power and performance. A rear-engine, race-inspired car which has often been said to be almost alive. And which would allow gifted drivers to coax from it an experience nothing else on the road could offer.

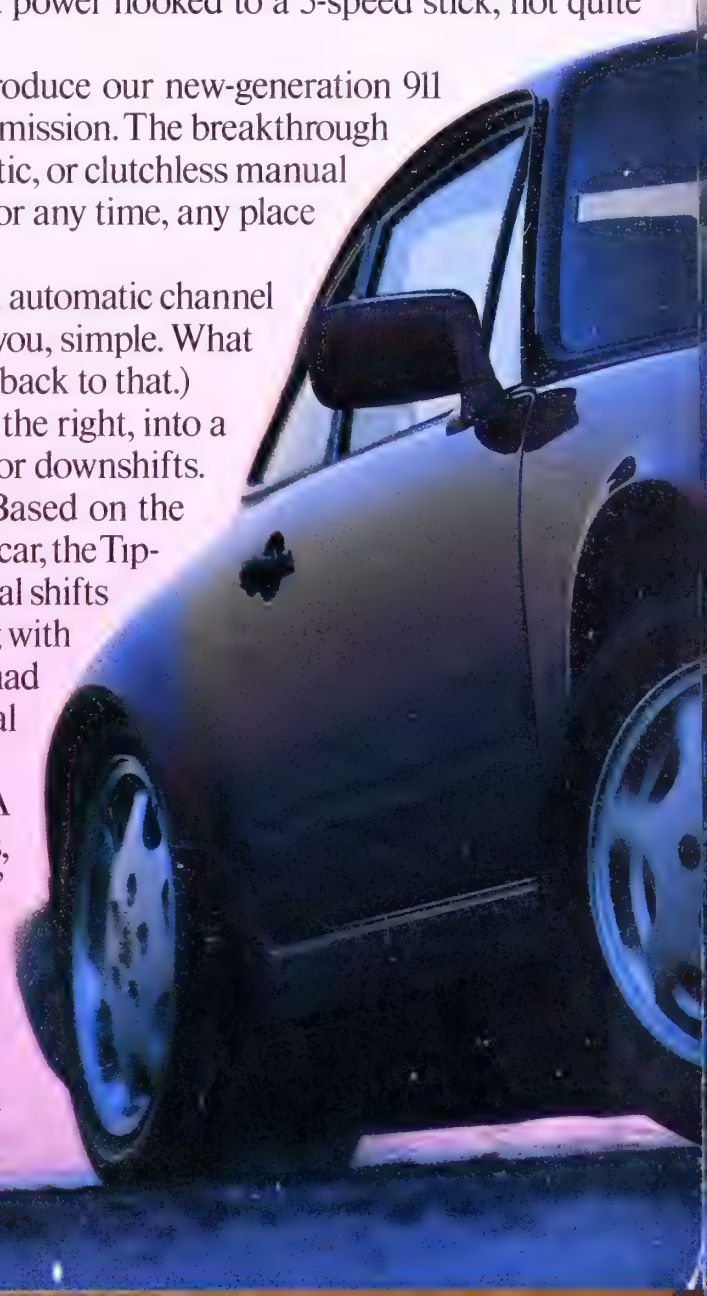
For anyone who took part, the rewards were nearly spiritual. For others, it remained an enticing enigma; desirable, yet with all that power hooked to a 5-speed stick, not quite right for their daily lives and commutes.

It is for both groups that we now introduce our new-generation 911 Carrera 2 with Tiptronic dual-function transmission. The breakthrough Tiptronic lets you choose either full automatic, or clutchless manual shifting. Making this Carrera 2 truly a car for any time, any place and any driver.

A two-channel shifter puts a traditional automatic channel on the left. Just put it in drive and go. (For you, simple. What it actually does is highly complex. We'll get back to that.)

For manual shifting, slip the shifter to the right, into a channel marked "+" for upshifts, and "−" for downshifts. Then simply "tip" the shifter up or back. Based on the electronic gearbox in our legendary 962 race car, the Tiptronic allows instantaneous, clutchless manual shifts with no let-up in power. In actual track testing with our seasoned Porsche test-drivers, 8 of 10 had faster lap times with the Tiptronic in manual mode than they had with a straight stick.

Meanwhile, back to the automatic. A sophisticated match of computer and sensors, it is what we call a "thinking" or "adaptive" transmission. Unlike simple automatics that might let you select normal, sport or economy driving with a lever or switch, the Tiptronic every 30 to 100 milliseconds measures vehicle speed, engine speed, throttle action and both forward and lateral acceleration.



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drive it with hind your back.

en, the computer automatically selects from five different shifting programs or maps, ntinuously adapting its shift patterns to the speed and style with which you are driving.

We could tell you more, but this is one of those things where you really have to be ere. The only way to fully appreciate the revolutionary performance of the Tiptronic is to feel it, with a test-drive at your authorized Porsche dealership.

We promise you'll find it a stimulating experience. Except, perhaps, for your left leg.

Porsche's revolutionary Tiptronic automatic transmission.

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NUMBER 3187

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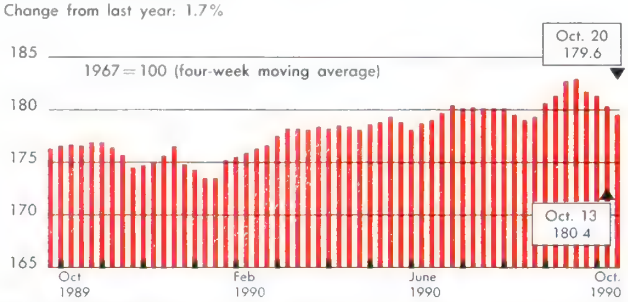
BusinessWeek Index

PRODUCTION

Change from last week: –1.1%
Change from last year: 1.7%

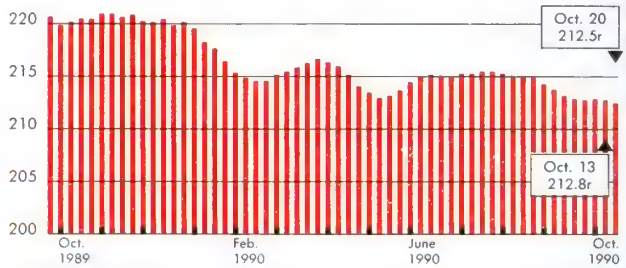


The production index decreased during the week ended Oct. 20, as the index continues to slip from its September peak. On a seasonally adjusted basis, output of autos, electric power, crude-oil refining, steel, trucks, paper, and lumber all declined. Paperboard, coal, and rail-freight traffic production increased. Prior to calculation of the four-week moving average, the index fell to 178.3 from the 180.7 posted in the week before.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: –0.1%
Change from last year: –3.6%



The leading index slipped during the week ended Oct. 20. A plunge in the change of materials prices, plus slower growth in M2, accounted for the negative signs. Stock prices gained slightly, bond yields were lower, and growth in real estate loans edged higher. Data on business failures were unavailable for the week. Before calculation of the four-week moving average, the index fell sharply to 212 from 212.5 in the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (10/27) thous. of net tons	1,839	1,862 #	4.4
AUTOS (10/27) units	147,513	130,305r #	0.9
TRUCKS (10/27) units	78,360	76,274r #	7.0
ELECTRIC POWER (10/27) millions of kilowatt-hours	51,050	51,469 #	3.5
CRUDE-OIL REFINING (10/27) thous. of bbl./day	12,604	12,769 #	–5.0
COAL (10/20) thous. of net tons	20,956 #	20,509	8.5
PAPERBOARD (10/20) thous. of tons	761.3 #	736.5r	3.1
PAPER (10/20) thous. of tons	756.0 #	763.0r	2.9
LUMBER (10/20) millions of ft.	469.4 #	471.8	–12.3
RAIL FREIGHT (10/20) billions of ton-miles	21.2 #	20.7	5.0

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (10/31)	129	128	143
GERMAN MARK (10/31)	1.52	1.51	1.84
BRITISH POUND (10/31)	1.95	1.95	1.57
FRENCH FRANC (10/31)	5.08	5.07	6.25
CANADIAN DOLLAR (10/31)	1.17	1.17	1.17
SWISS FRANC (10/31)	1.28	1.27	1.62
MEXICAN PESO (10/31)[3]	2,920	2,915	2,604

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (10/31) $/troy oz.	379.500	371.100	1.7
STEEL SCRAP (10/30) # 1 heavy, $/ton	110.50	110.50	12.8
FOODSTUFFS (10/29) index, 1967 = 100	211.6	213.5	–1.3
COPPER (10/27) ¢/lb.	131.7	128.3	7.9
ALUMINUM (10/27) ¢/lb.	81.8	83.5	2.9
WHEAT (10/27) # 2 hard, $/bu.	2.79	2.73	–35.0
COTTON (10/27) strict low middling 1-1/16 in., ¢/lb.	71.14	69.02	3.1

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (10/26) S&P 500	310.92	303.83	–8.8
CORPORATE BOND YIELD, Aaa (10/26)	9.45%	9.57%	6.8
INDUSTRIAL MATERIALS PRICES (10/26)	104.9	106.7	–2.0
BUSINESS FAILURES (10/19)	NA	297	NA
REAL ESTATE LOANS (10/17) billions	$382.8	$382.0	8.8
MONEY SUPPLY, M2 (10/15) billions	$3,339.4	$3,341.2r	5.1
INITIAL CLAIMS, UNEMPLOYMENT (10/13) thous.	421	395	26.8

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
PERSONAL INCOME (Sept.) annual rate, billions	$4,696.8	$4,673.0r	6.5
MANUFACTURERS' INVENTORIES (Sept.) billions	$376.5	$374.3	1.5
MANUFACTURING SHIPMENTS (Sept.) billions	$243.8	$245.6	4.4
NEW HOME SALES (Sept.) annual rate, thous.	505	535	–21.2

Sources: Commerce Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (10/15)	$819.5	$822.2r	3.9
BANKS' BUSINESS LOANS (10/17)	317.9	317.3	–0.7
FREE RESERVES (10/17)	632r	612r	–30.3
NONFINANCIAL COMMERCIAL PAPER (10/17)	159.0	156.2	22.7

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (10/30)	7.84%	7.93%	8.80%
PRIME (10/31)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (10/30)	7.84	8.03	8.45
CERTIFICATES OF DEPOSIT 3-MONTH (10/31)	7.96	7.55	8.53
EURODOLLAR 3-MONTH (10/24)	8.04	8.13	8.58

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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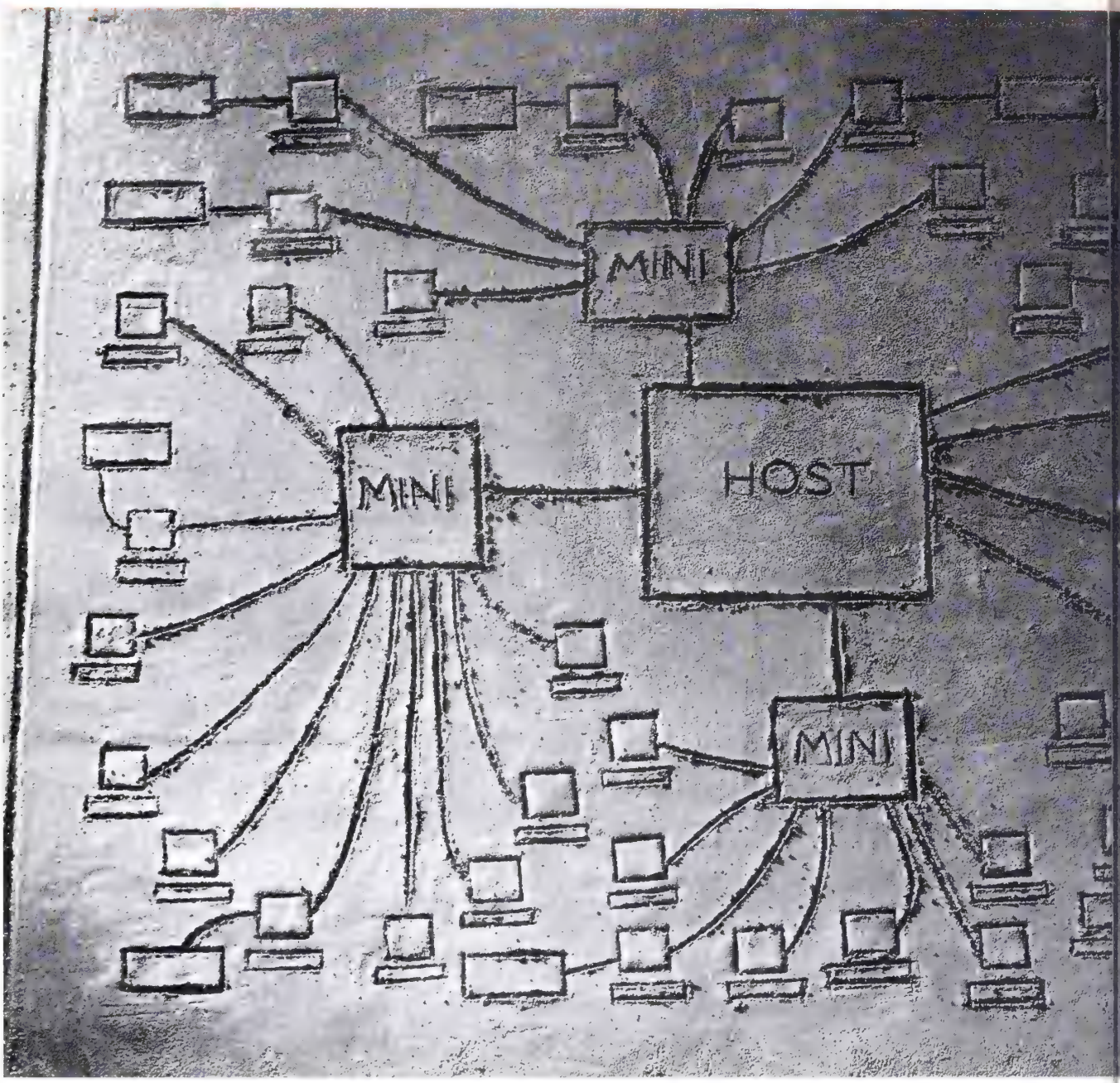

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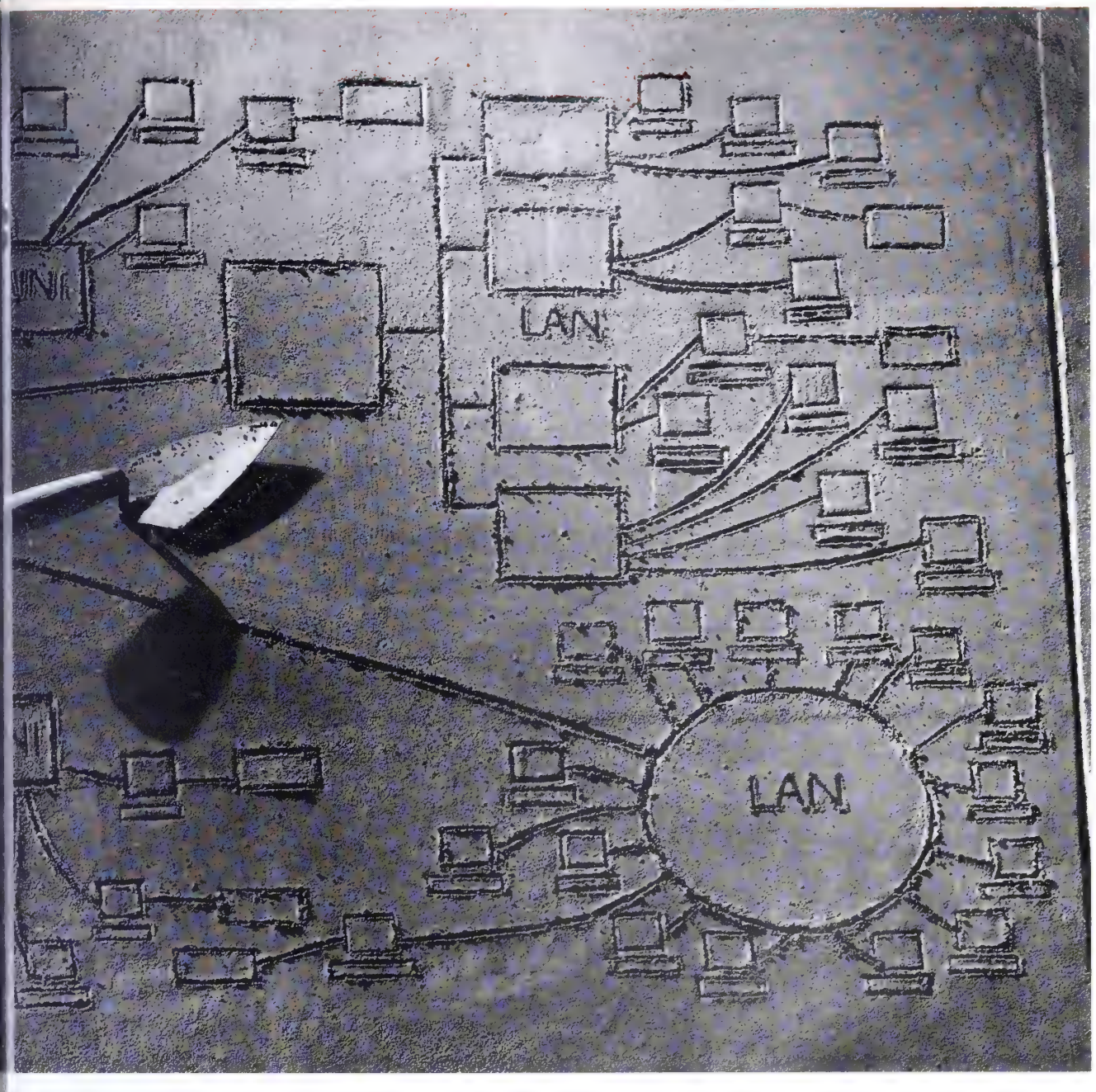

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A REPORT CARD ON THE BEST B-SCHOOLS

As I read your recent article on the nation's finest business schools (Cover Story, Oct. 29), I learned that Harvard ranks first in BUSINESS WEEK 1000 CEOs by a more than 2-to-1 margin; ranks second in average starting pay and admissions selectivity; ranks first in research by an almost 3-to-1 margin; and is the only business school judged by recruiters to rank among the top five in general management, marketing, finance, and production.

In light of these impressive credentials, Harvard's No. 3 ranking in your survey can be explained only by your sole reliance on the opinions of graduating students and corporate recruiters. Harvard is an intense, ultracompetitive experience that is hardly designed to elicit warm fuzzies from the student body. Also, because Harvard has traditionally been heavily (and successfully) recruited by the top investment banking and consulting firms, the school has never been a favorite destination for recruiters from less "glamorous" industries.

While the opinions of graduating students are interesting, actions speak louder than words. Accordingly, can you tell your readers how many of Northwestern's 1,610 students were accepted at Harvard and instead chose to attend Northwestern? Not many, I'll wager.

Although Northwestern has developed into a very nice "second choice" school, the big three continue to be Harvard, Stanford, and Wharton. The deans know it, the faculties know it, the recruiters know it, and I assure you the students know it.

In 1979, I declined a generous scholarship offer from Northwestern to attend Harvard, from which I obtained an MBA in 1981. I have no regrets.

Joseph P. Cunningham
Houston

Your salary data offer important information to those who are thinking about going for an MBA. However, your statistics do not show how much a person who did not go to B-school could expect in salary increases over a period of two and five years.

The increase in salary for an average Northwestern student from $32,000 a year to $63,070 is impressive, even if the cost is paying $33,000 in tuition and foregoing two years of salary. But how does the improved salary compare with what that person would expect to get by staying in the work force? How do MBA salaries compare with non-MBA salaries (given people with equal undergraduate backgrounds) 10 years out?

Donald N. Fawcett
Chicago

Editor's note: We don't know how people would have fared if they hadn't returned to school. But typically, students of top B-schools leave behind jobs paying from $50,000 to $80,000 and must pay from $10,000 to $33,000 for tuition, plus the costs of books, case materials, and perhaps a computer. Even for MBAs who earn $100,000 or more, it could take years to recoup.

You are to be congratulated for the research that went into your Cover Story ("Is research in the ivory tower 'fuzzy, irrelevant, pretentious'?"). I am surprised, however, that my colleague Dick West [dean of New York University's graduate school of business] should have characterized much business school scholarly research as "crap."

I know that the business community finds the research conducted at Columbia to be relevant and fundamental to understanding how business functions in the global economy. Sponsors of faculty research understand that the payback for them and society need not be immediate and that quality business research is an investment in our future. This is

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true for a range of interests, from the technical aspects of economic forecasting to broad issues of U. S. relations with Japan. Futhermore, the professors who engage in this research are precisely those who are sought after as consultants to the business community. They are also popular and dynamic teachers—and no one believes more ardently than I do in the importance of teaching.

While it may be true that a portion of research tends to count the number of angels that can dance on the end of a pin, any business school worth its weight as a research institution should not devalue the role of research.

Meyer Feldberg
Dean, Business School
Columbia University
New York

Your report that B-school faculty and deans look skeptically at Deming quality concepts suggests one major reason why B-school research is in such low repute.

Basic to Deming concepts is a recognition of fundamental limitations on problem-solving and decision-making, especially from omnipresent, inherent variation in all processes. A lack of awareness of this makes such research amount to the production of nonsense. It is as if a research scientist proceeded with his investigation in ignorance of the fundamental constraints of nature (e.g., the laws of thermodynamics) and the ubiquitious presence of errors!

When B-school research finally recognizes these fundamentals it will then be able to provide real leadership in management. I hope it will. There is much to be done.

Charles I. Whitman
Cleveland

Your article jolted a few pedestals that need shaking. Business schools too often reward published research with promotion and tenure. Academic journals set criteria that encourage doctrinaire, pretentious writing. Since rewards prompt action, faculties spend too much time elaborating impractical theories that carry over into their teaching and weaken rather than strengthen it.

We need to agree on why business schools exist—to enable students to develop knowledge, attitudes, and skills so that they will satisfy the identified needs of the enterprises for whom they will work. Business schools must follow their own advice and adopt a market rather than product orientation.

Currently, too many business schools are organized primarily for research, secondarily for teaching. Following their own precepts, they should begin to focus on market research, course and program development, teaching, and student-employer placement.

Rewards should be for preparing edu-

CORRECTIONS & CLARIFICATIONS

A table in "Motorola: How much will it cost to stay No. 1?" (Information Processing, Oct. 29) incorrectly stated that County NatWest Inc. predicts shrinking worldwide sales of land mobile radio gear. While other analysts predict that, County NatWest expects the market to grow at least 10% compounded annually for the next five years.

In "Smith Corona contemplates heresy" (In Business This Week, Oct. 8), we said that Smith Corona once estimated its market for word processors at 1.2 million units a year. That estimate came from industry analysts and competitors.

"Is Matsushita getting cold feet?" (In Business This Week, Nov. 5) misstated MCA's Oct. 24 closing stock price and the amount it fell that day. It closed at 50, down 8⅞.

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With A Strong Workers Compensation Systen

Suffering an on-the-job injury that keeps someone away from work—and away from a paycheck—is difficult enough.

Waiting weeks, or even months, for fair income replacement is nothing short of inexcusable.

Which is exactly why the Workers Compensation System was created.

It's a system that, for 75 years, has been dedicated to getting injured workers their income benefits in a fast, no-fault, no-hassle way.

The Bad News

Unfortunately, there are problems with Workers Compensation in some states. Serious problems that are spreading to other states.

Unnecessary litigation and underfunded, understaffed, state-administered agencies are slowing down the entire process. On top of that, in some states minor injuries are overcompensated and major injuries are undercompensated.

The Good News

In some states, Workers Compensation works without a hitch. Workers are compensat quickly, and fairly.

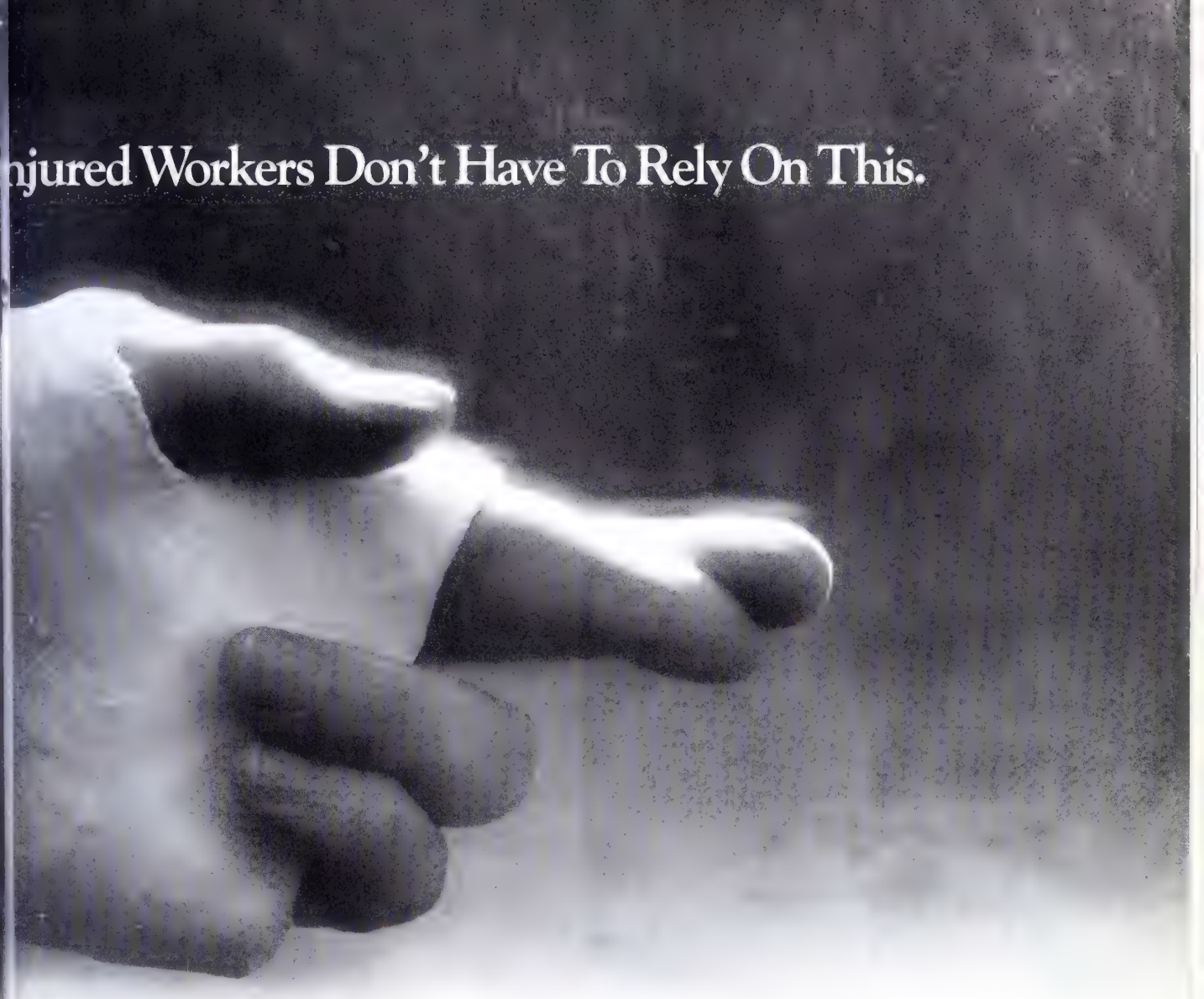
But to bring that same quickness and fairness to the troubled states today, and to strengthen all systems for tomorrow, we have t promote change. A few examples:

Simpler procedures, better communicatio of rights and benefits, plus teamwork between doctors, employers and state regulatory agencie would do wonders for the individual systems.

So would agency-sponsored toll-free num-

Help Strengthen Workers Compensatio

njured Workers Don't Have To Rely On This.



's for injured workers to inquire about their ome benefits. And consumer brochures out- ing specific workers' rights.

Ideally, alternative methods for resolving itimate disputes should be adopted—short of ng to court. This would allow for quicker olution of those disputes and faster income ıefits.

It's Up To All Of Us

To charge ahead and implement ideas like se, you can do one of two things to help.

One: Be aware. Find out what's happening our state, how you're affected, and what you do. Talk to your insurance company or busi- s trade association.

Or two: Share your views by writing to y Countryman, President and CEO of Liberty Mutual, 175 Berkeley Street, Boston, MA 02117. We'll help you get in touch with people in your state who can help.

Workers Compensation is too valuable to neglect. It provides quality medical and rehabilitative care. Delivers income benefits with fairness and swiftness. And offers cost stability to employers.

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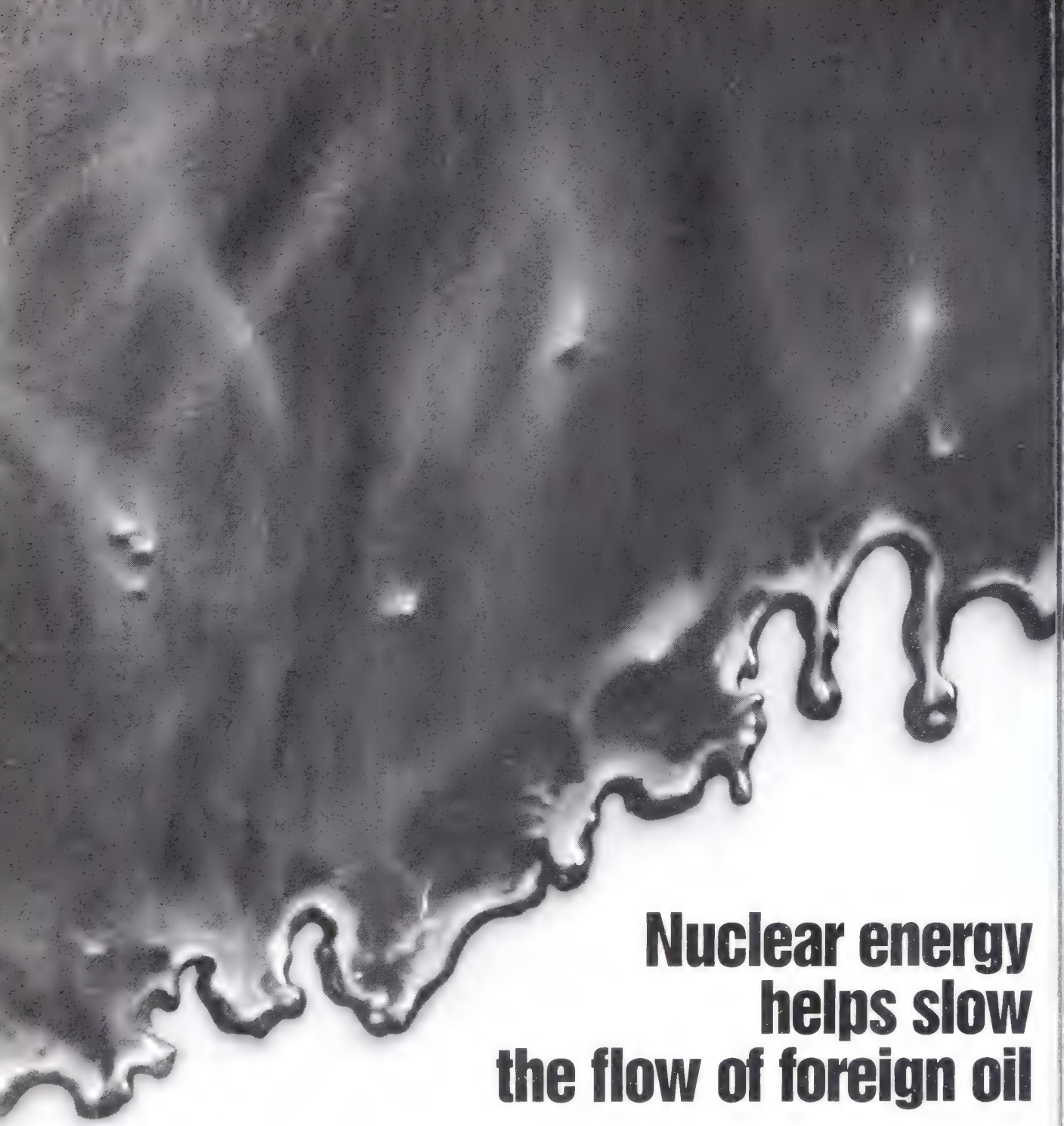

Nuclear energy helps slow the flow of foreign oil

Unrest in the Middle East has once again put America's national security and economy in danger.

We now import more than half of all the oil we use, much of it from the Middle East. But nuclear energy can help us reduce this excessive dependence on unstable sources. Our 112 nuclear electric plants already have cut foreign oil dependence by 4.3 billion barrels since the 1973 oil embargo, and continue to cut our oil imports by 740,000 barrels every day.

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Nuclear energy means more energy independence.

cated, competent students. If research is a commitment of the overall objective, faculty should devote alternate years to teaching and research. We deserve greater returns from our investment in business and other forms of education.

Louis A. Allen
Mountain View, Calif.

CAR QUALITY: IS DETROIT STILL JUST COASTING ALONG?

In regard to "A new era for auto quality" (Cover Story, Oct. 22), I wonder if American automobile manufacturers will ever catch up. It seems as if U. S. carmakers are doing just enough to get by. At the times when they advertise a new quality level, it is a level foreign companies have set as a standard. Why is this? Because, as your article points out, they do not take the risks that the Japanese auto companies do.

Marc Field
St. Louis

Executives should use customer satisfaction to drive strategies and business plans. Often, they have delegated customer satisfaction to individuals in charge of either quality or customer service. Out of sight, out of mind! Some add: "We know what customers want better than they do." But one day they will realize that it costs five times more to get a new customer than it costs to keep one and that reducing customer defections can improve profitability dramatically. By then it may be too late.

Samuel M. Felton
Chicago

How can you express your survey results ("Detroit may be missing the mark that matters most," BW/Harris Poll, Oct. 22) in such a biased manner? American cars are not the dogs you prefer them to be. The answer to every single question you listed comes out in favor of American cars.

Susan J. Elsholz
Plymouth, Mich.

Editor's note: It's not surprising that American cars came out ahead of Japanese cars in our survey. After all, 77% of the people polled said they own or lease American cars. But that means any score of less than 74%—that is, the 77% minus the three percentage-point margin of error—represents a significant negative for U. S. carmakers, since it suggests that some proportion of people who currently own American cars think Japanese cars are better.

CALLING SEXISM BY ITS RIGHT NAME

I was pleasantly surprised that your article about women's difficulties in gaining representation in government ("The 'Year of the Woman'? Maybe," Government, Oct. 1) prominently identified sexism as a major obstacle to their progress. So many people are ready to assume that women now have equal opportunities, so their continuing failure to achieve equal status in business and politics must be due to biological inevitability or individual personality deficiencies. Applying the appropriate, negative label of sexism to pervasive stereotypes and antiwomen attitudes is an important step toward eliminating them.

Cheryl Turner
San Diego

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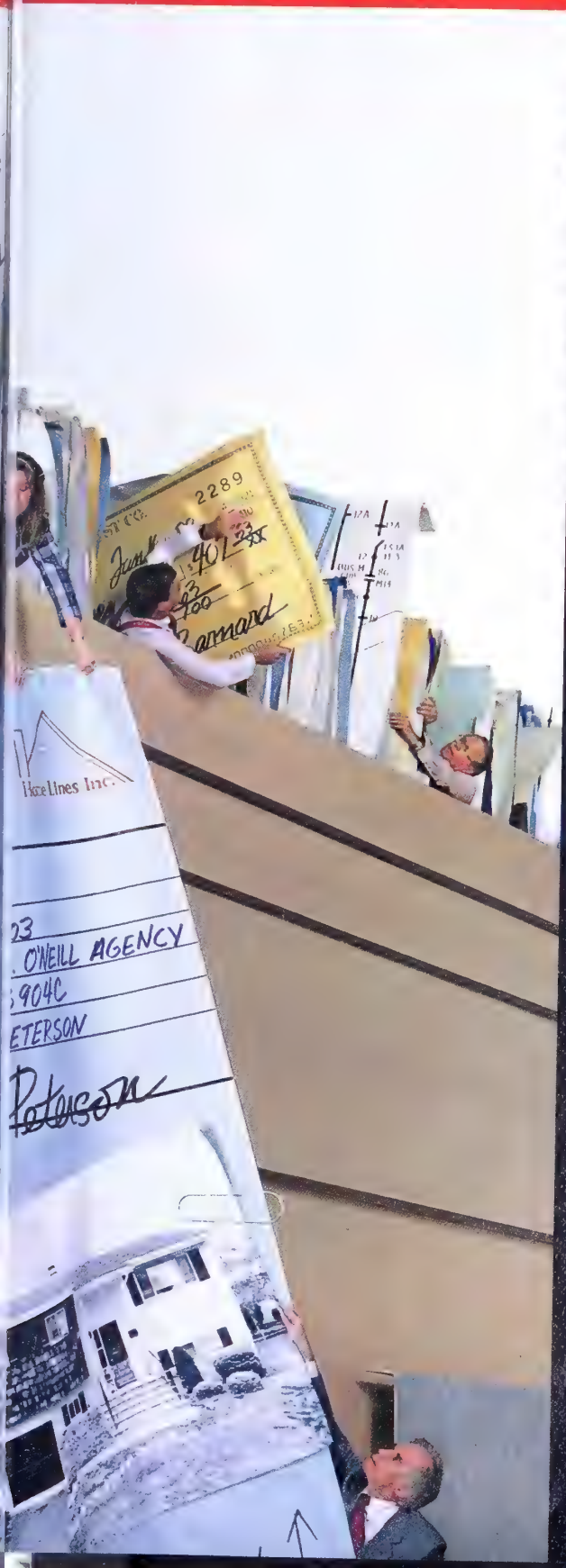

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STAYING THE COURSE: THE EMOTIONAL AND SOCIAL LIVES OF MEN WHO DO WELL AT WORK
By Robert S. Weiss
Free Press • 314pp • $24.95

IT'S LONELY AT THE TOP —BUT LET'S NOT DISCUSS IT

In the '50s, they were the men in the gray flannel suits; in the '60s, they were the Establishment. They are, says Robert Weiss, a research psychologist at the University of Massachusetts, "the men who keep the society going." And explaining what keeps them going is his aim in *Staying the Course*.

Although many of the unnamed men depicted here are prosperous and prominent, *Staying the Course* is hardly a *Lifestyles of the Rich and Famous*. Instead, it paints a psychological group portrait. Weiss and his staff interviewed 80 men, aged 35 to 55, "who had what appeared to be upper-middle-class occupations and who lived in upper-middle-class settings" in New England. He uses these interviews, as well as research from two previous books, to describe how these men function at work, how they deal with stress and with their families, even how they fool around.

Not surprisingly, career dominates their lives. When describing their jobs, they often cast themselves as heroes, rescuers, or adventurers. "Just as play is the work of the young, work is the play of adults," Weiss notes. On the job, they are competitive and highly conscientious. "You never finish," sighs one administrator. The stress they feel from work is often severe.

It's in dealing with stress that the men exhibit one of their key characteristics: "compartmentalization." Compartmentalizing translates roughly as "you make a decision and live with it." You don't second-guess, you don't dwell on it, and you don't let it overlap onto other concerns—or other aspects of your life.

Which means these men are, in a fundamental way, lonely. Although they define friends as allies during crises, they are reluctant to ask friends for help or even to discuss work problems with them. They don't like to talk things over with their wives, either. Says one: "When something goes wrong at work, there's nothing at home that can solve the situation . . . it's more comfortable to talk about what's going on at the house. Because the house is in a lot better shape than I am most of the time."

This separation of personal and professional selves explains a typical conflict. Most of these men say family is most important in their lives, yet they often give family short shrift because of their jobs. They rationalize, in part, that they are working hard for the family. Most express a conservative view of marriage, in which a wife's main role is that of homemaker, even if she works outside the home, and a husband's is that of provider. (Many of the extramarital affairs Weiss tracks got started as "a kind of time-out from responsibility.")

The insights in the book are more likely to provoke nods of recognition than gasps of revelation. But some are particularly striking. Weiss explains, for example, the apparent paradox of men who

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GREGORY PECK IN A GRAY FLANNEL SUIT: PROTOTYPE FOR THE MEN WHO KEEP SOCIETY GOING?

gnore their children during marriage yet seek custody of them after divorce. The men had worked out a paternal role—the loving if distant dad—that the breakup won't permit them to continue, says Weiss. They must find a new way to play the part of father.

But the book needs a stronger sense of its subjects' lives and lifestyles. Even the definition of "doing well at work" is vague: The men include high-ranking executives, small-business owners, and heads of nonprofit groups. That flaw raises doubts about whether Weiss's findings are all that connected to his subjects' professional success. The author offers only a few examples of differences between these men and those who are less affluent. He even mentions a study that shows that blue-collar men don't like to discuss work problems at home, either.

And one wonders how widely applicable Weiss's conclusions are. He argues that "within the great expanse of the American and European urban and suburban upper middle class, culture and social structure are pretty much the same as those described in this book"—a highly debatable statement, especially coming from someone who talked with only 80 guys in New England.

Overall, the men profiled in *Staying the Course* seem rather traditional, throwbacks to the days when men were men and women were their wives. But Weiss doesn't think masculine values and behavior are going to change much—nor does he think they should. He feels that his subjects are basically happy and that they do "provide the society's energy." Some may call his view depressing, others may deem it realistic. I sense, with a sinking heart, that Weiss is probably right: These attitudes are deeply ingrained. But that doesn't mean we shouldn't try to make life more fulfilling. Why settle for working ourselves to death and not talking to each other?

BY TROY SEGAL

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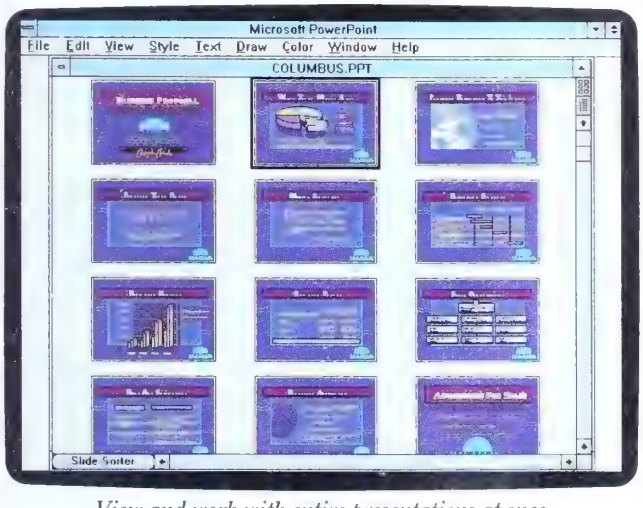

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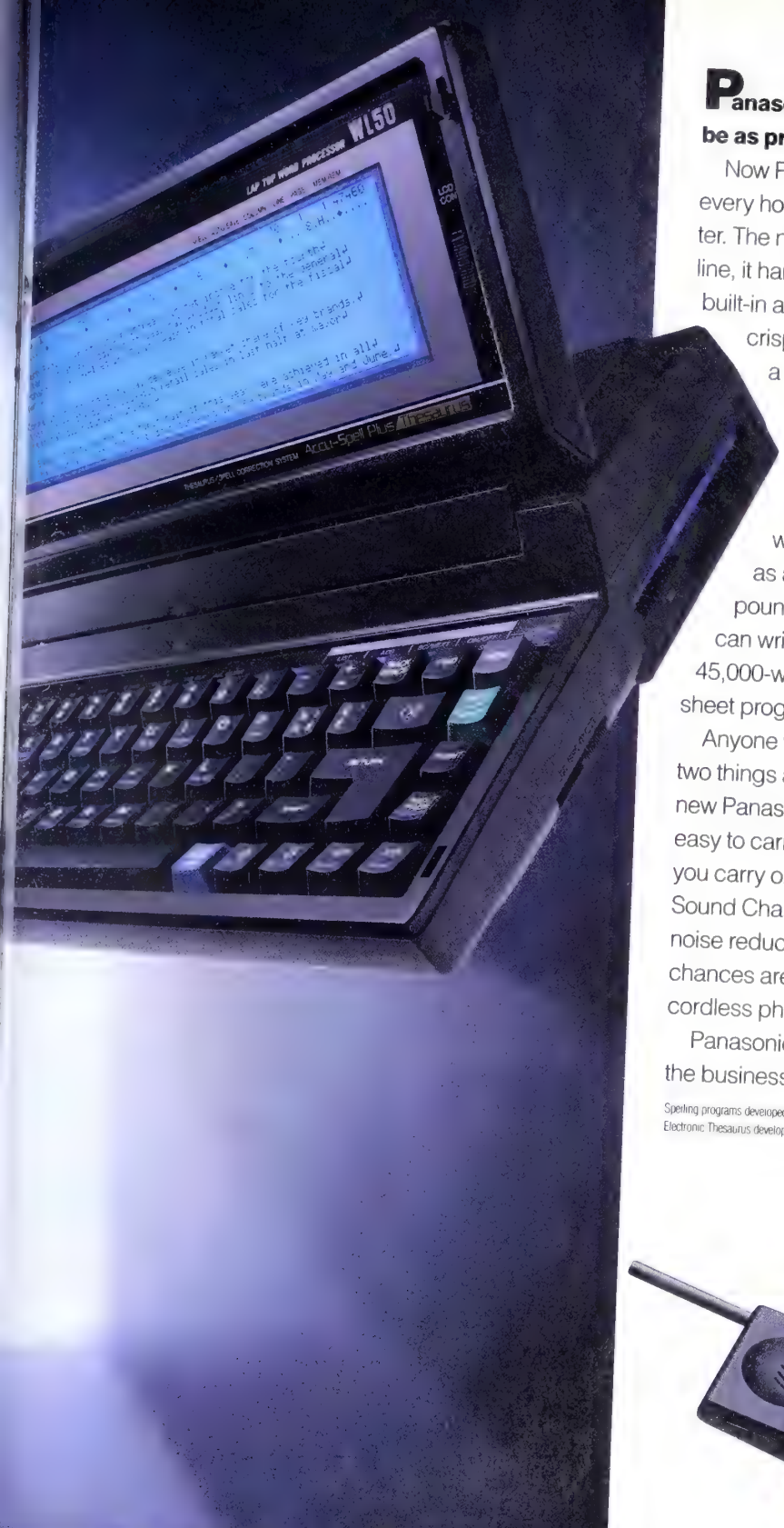

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THE VISIBLE HAND GUIDING THE NOBEL PRIZE IN ECONOMICS

BY ROBERT KUTTNER

Despite its pretensions to recognizing only pure science, the prize is not entirely innocent of politics or ideology. Generally, it goes to those whose work is based on the assumption that markets are largely self-regulating

This was an odd year to give the Nobel to the fathers of modern financial economics. The mathematical elegance of this brand of analysis masks a policy inference: Financial markets are best left alone. Among the offspring of this debatable claim is the idea that any new instruments that financial markets invent are by definition virtuous; from this has flowed the overleveraging of America, the hostile-takeover orgy, the savings and loan meltdown, the obsession of U. S. managers with the short term, and the view that corporations are nothing more than ephemeral bundles of assets to be manipulated by rational investors. As economist Herbert Stein quipped, perhaps next year's Nobel will go to Mike Milken.

In fairness, this year's Nobel winners—Harry M. Markowitz, William F. Sharpe, and Merton Miller—made pioneering contributions to the theory of capital markets. Markowitz put the commonsensical idea of portfolio diversification on a theoretically and statistically precise basis. Sharpe's capital asset pricing model, and its "beta coefficient" as a precise indicator of the relative risk of a particular asset, became crucial tools for systematic portfolio analysis. Miller argued that neither a company's choice of debt vs. equity nor its dividend payout rate affects its market value. This is broadly valid—although the exceptions are probably more significant than the generalization.

While the work of Markowitz and Sharpe is somewhat less controversial, Miller's theory depends on the usual heroic assumptions: Assume general equilibrium, perfect information, and costless bankruptcy; ignore the influence of tax policy; and pretend that the individual investor has the same access to capital as the company. His work also treats the corporation as a mere "veil," whose institutional life is of little significance.

LET 'EM RIP. As pure theory, with appropriate caveats, Miller's work stimulates useful analysis. Unfortunately, his disciples have tended to take the model as a literal description of the world, a sprinkling of scholarly holy water on the extreme claims of the 1980s: Let market forces rip—whatever they do is by definition optimal. But in the real world, the setting of prices, the arbitraging away of supernormal returns, and the correction of misspecified prices can be a chaotic and destructive mess—not a neat equilibrium exercise on X and Y axes.

As a scholarly discipline, economics has always suffered from physics-envy—today more than ever. Gregg A. Jarrell, former chief economist of Reagan's Securities & Exchange Commission, began a euphoric column on this year's Nobels: "What a great day for financial economists! The announcement that the Nobel prize has been awarded to Merton Miller, William Sharpe, and Harry Markowitz finally acknowledges that financial economics is a genuine science, in the same league with physics and mathematics." But history amply demonstrates that the only thing financial economics has in common with physics is that both must live by the law of what goes up must come down.

Despite its pretensions to pure science, the Nobel prize in economics is not entirely innocent of politics or ideology: In this respect it is just like everything else in economic life. Among Nobels, the economics award is a Johnny-come-lately. It was added only in 1969, by the Swedish central bank. The then-economic adviser to the bank, Assar Lindbeck, has served on the six-man economic prize committee since its inception and as its chairman since 1980. As Lindbeck has grown more conservative, so has the prize. A few eminent neo-Keynesians have won it, including Paul A. Samuelson, James Tobin, and Robert Solow, but some of the more conservative winners have been far less eminent. Joan Robinson, one of the greatest Keynesians and probably the most distinguished female economist ever, died at age 79 without Nobel recognition. Fellow Keynesians Sir Roy Harrod and Nicholas Kaldor were similarly blackballed.

CONSENSUS. In a lengthy article on the prize, Lindbeck wrote: "So far, the proposals of the prize committee to the [Swedish] Academy have been unanimous. A consensus has in fact developed quite 'automatically' within the committee, as if by some kind of invisible hand." Many skeptics suspect that the invisible hand is Lindbeck's own. A few winners—Gunnar Myrdal, Herbert A. Simon, and W. Arthur Lewis—have indeed emphasized the evolving, complex, socially mediated, and above all imperfect nature of economic relations. But generally the prize goes to the technically virtuous whose work is predicated on the usual assumption that markets are substantially self-regulating.

The Nobel might give more recognition to the great institutionalists of the profession—Hyman P. Minsky, Charles P. Kindleberger, Raymond Vernon, Albert Hirschman, Alfred D. Chandler, Harvey Leibenstein, Gösta Rehn, and of course J. K. Galbraith—whose work begins with the complexity and turmoil of actual markets rather than with the presumed equilibrium of theoretical ones. It also might recognize some Japanese economists. They don't subscribe to Western neoclassical theory, but evidently they are doing something right.■

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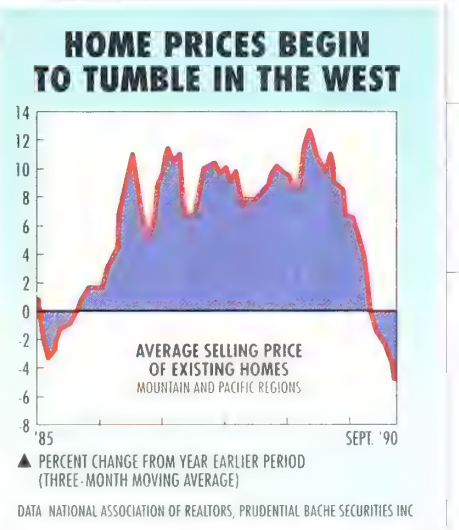
BY GENE KORETZ

AS THE HOUSING SLUMP SPREADS TO THE PACIFIC COAST . . .

After battering home prices in the Northeast, the housing recession is spreading west and could well wreak similar havoc in the massive California market, warns Lawrence J. Horan of Prudential-Bache Securities Inc. "The housing inflation, which saw prices in many coastal areas jump by 50% or more during the 1987-1989 period, is over," he declares. "The question now is how far prices will slide."

While new-home prices and housing starts nationwide are both falling, it is the resale market that concerns many homeowners trying to gauge the value of their housing investments. Existing-home sales across the nation sagged 8% in September to their slowest annual pace in 33 months, and the average existing-home price fell 3.3%, to $116,500—1.5% below the level of September, 1989. But the declines were most notable in the West, which is dominated by the California market and which saw average existing-home prices tumble by 5.3% from their year-earlier level.



"Everything came to a stop in September," reports Leslie Appleton-Young, vice-president for research and economics at the California Association of Realtors. On a seasonally adjusted basis, sales of single-family detached homes in the state plummeted to a 381,000 annual pace—a startling 26.5% below the rate in September, 1989. At the same time, the unsold inventory of existing homes jumped to a 13.4-month supply.

Although the median California resale price of $190,350 is only 5.6% below last year's peak, Prudential-Bache's Horan reports that a sampling of homeowners in the high-priced areas of Southern California indicates that they believe that prices of existing homes actually sold in their neighborhoods are off 10% to 20% from their peaks last year and are headed still lower. According to the Real Estate Research Council of Southern California, at last count in June, the unsold inventory of single-family houses under construction or completed in that part of the state was nearly triple the number a year earlier.

"Realtors tell us that buyers are waiting for prices to weaken by 25% or more," says Horan. "That attitude is likely to become a self-fulfilling prophecy, particularly in light of signs that the California economy is slowing." Indeed, a recent *Los Angeles Times* poll of more than 2,500 California residents indicates that two out of three believe the state will suffer a recession by next year, and 40% think the slump has already arrived.

. . . RENTERS ALL OVER ARE RESISTING THE URGE TO BUY

The slowdown in new and existing home sales may be the key to an anomaly in the consumer price index. As noted in these columns recently (BW—Sept. 10), housing costs in the CPI have accelerated sharply this year, mainly because of a component termed "owners' equivalent rent," which purportedly measures what homeowners would be shelling out if they rented their homes instead of owning them. This component, which accounts for nearly a fifth of the CPI, is based on a survey of the relatively few single-family homes that are rented. While actual rents paid by all renters (mainly apartment dwellers) have risen at a 4.9% annual rate in the past six months, owners' rent has jumped at a 6.6% pace.

Some economists believe the surge in owners' rents is simply a statistical artifact that will disappear over time, since such a price acceleration seems to make no sense in an essentially weak housing market. But economist Rosanne M. Cahn at First Boston Corp. theorizes that economic uncertainty and the prospect of falling home prices is leading many potential home buyers to defer home purchases and rent a house instead. "If this is happening," she says, "rental demand may be rising significantly in a market with a relatively small supply—detached homes in the suburbs—and the upward pressure on owners' equivalent rents could persist for some time."

THE DEFAULT EPIDEMIC JUST KEEPS RISING

More companies are kicking the junk-bond habit the hard way. Standard & Poor's Corp. reports that so far this year Corporate America has defaulted on more publicly held S&P-rated debt than in any other previous full year. Through Oct. 26, 42 U. S. companies (excluding financial institutions) had defaulted on some $11.1 billion of bonds. That's over three times last year's total of $3.1 billion.

In the early 1980s, notes S&P, the relatively few companies defaulting were mostly "fallen angels" whose profits and credit quality had gradually deteriorated. By contrast, today's larger crop of defaulters are mainly "companies with viable operations which simply took on too much debt to finance acquisitions, buyouts, or recapitalizations."

Looking ahead, the rating company sees a rising number of defaulting highly leveraged companies, even under favorable economic conditions—and a much sharper pickup in defaults if a severe recession develops or interest rates surge higher.

AMERICAN CEOs RAKE IN THE CASH— AND WORRIES TO MATCH

American top executives still lead the global pack in pay and compensation. Towers Perrin reports that the typical chief executive officer of a U. S. company with $250 million in sales this year has a total compensation package worth $633,000—some 70% more than the typical CEO of a comparable German company and more than twice the pay and perks of his Japanese counterpart. What's more, the purchasing power of his aftertax pay is roughly double that of his counterparts in 19 other countries surveyed.

The catch is that it's getting lonelier at the top. The Association of Executive Search Consultants Inc. reports that replacement positions outnumbered new jobs in executive searches performed in the third quarter by its members, and that 26% of the searches were for presidents and chief executive officers. In today's recessionary climate, says the AESC, "senior executives are undergoing sharp scrutiny, and boards of directors are pulling the plug when things aren't going the way they should." ▣

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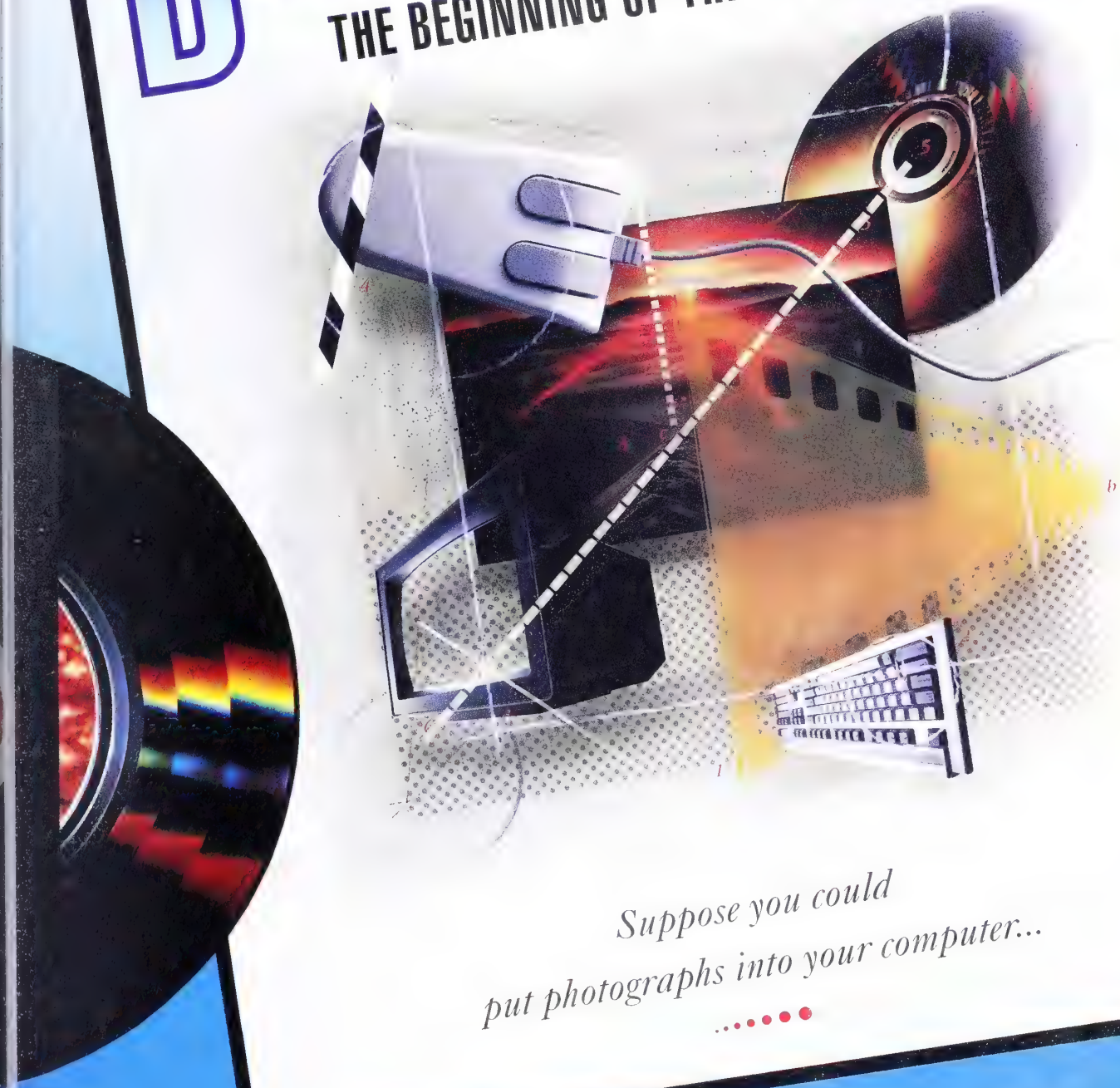

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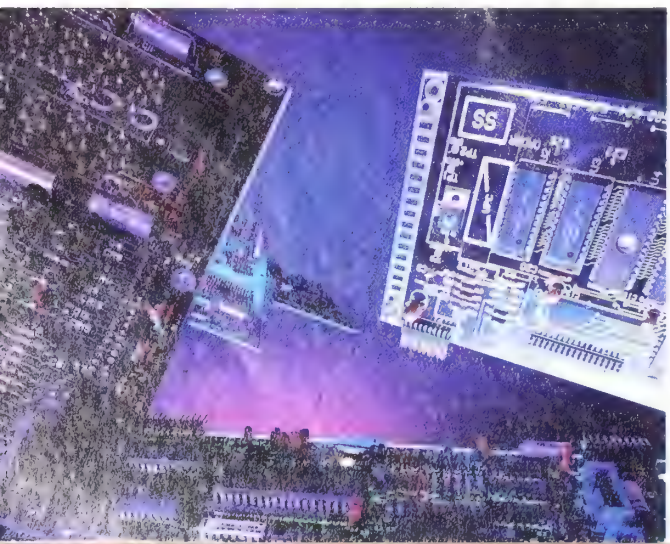

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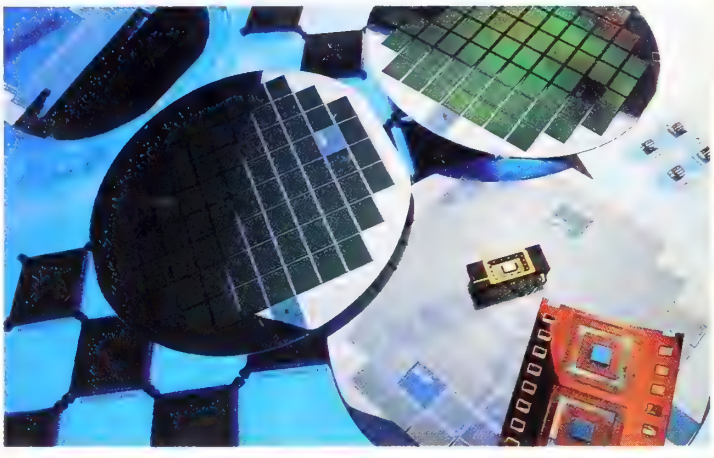

silicon technologies," explains Matteson. "What results from that combination is a new technology that will redefine the uses people make of the photographic image."

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The Four Stages of Imaging

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Once captured, images must be "stored." Today, a variety of technologies are available for storage of images, including films (such as microfilm for documents, graphic arts film for printing and radiographic film for health care) and electronic media (such as magnetic tape and various types of optical disks). Users can hold their image laden optical disks in storage libraries, which act like and are called electronic jukeboxes. Robotic arms load disks as needed for storing new images or reading those already stored. The Kodak optical disk library 6800 holds up to 150 14-inch optical disks. Providing storage equivalent to more than 16,000 four-drawer file cabinets, the unit can find and read any file in 6.5 seconds.

"KODAK, THE RECOGNIZED WORLDWIDE EXPERT ON COLOR HAS SOLVED THE PROBLEM OF MAKING TRUE COLOR POSSIBLE IN TODAY'S DESKTOP COMPUTERS."

Once the permanent record of an image is stored on a medium, users need to work with – or "manage" it. A variety of Kodak systems allow users to manage images from their desktops. By pressing a few keys, a user can review and file documents, add notes, and route copies to others. The Kodak Imagelink digital workstation provides microfilm users with similar options, including the ability to digitize and fax the filmed images, and annotate image prints.

Delivery, or "sharing," is the fourth and final step in the imaging process. A variety of Kodak Ektaprint copiers and duplicators are available, including heavy-duty models that can print up to 6,000 copies per hour. Kodak also has printers ranging from the Diconix M150 Plus – that fits into a briefcase – to the new LionHeart™ document management system, which is highlighted by a super-speed digital printing system that prints up to 92 pages per minute. And when it comes to color, the Kodak XL 7700 color thermal printer delivers unmatched high quality prints from digital sources, and the Kodak Diconix

color 4 printer is a cost-effective option for output in the office. Also, at 23 copies per minute, the Kodak ColorEdge copier is nearly four times faster than any other copier in its class.

Products Based on Imaging

"As imaging technology grew, especially in the last ten years or so, we saw the opportunity to provide our customers with products that didn't yet exist," explains Matteson. "Our imaging systems, including DCI products, are the direct result of that desire to design innovative products and technologies to meet customers' needs. We believe that the Photo CD will create revolutionary innovations in DCI."

The stops along the digital imaging highway have been numerous, beginning with Atex, a computer-aided publishing system which has been adopted by more than 750 newspapers worldwide since its first electronic pre-press system was introduced nearly two decades ago.

Kodak Approval direct digital color proofing system allows commercial printers to compile four-color halftone samples to check images that have been electronically scanned for printing. And Kodak Colorsqueeze software makes it possible to compress and decompress image data for cost effective storage and transmission of large files on Macintosh computers.

Security personnel and police departments can use Kodak's Edicon system to track photos captured with video cameras. The system combines color images, text, and graphics on a single monitor. For police work, the Edicon system sorts mug shots on-line to facilitate the creation of lineups.

Not overlooked in this prodigious development of imaging technology, general industry is reaping the benefits of such products as the award-winning Ektapro™ analyzer, which uses imaging technology to inspect procedures, tighten tolerances, and improve quality control.

Adding Color to the Picture

Expertise in photography, imaging, and imaging systems was not enough to bring about DCI, however. Still missing was the technology that would let Kodak, and the rest of the world, duplicate in the computer what up until now had only been possible on film: true color.

Computer color is not true color. What is stored is not always what is displayed because there is, as yet, no color standard in the computer industry. So what appears pink on one monitor may well look peach on another, and orange on a third, while what is actually printed may be melon.

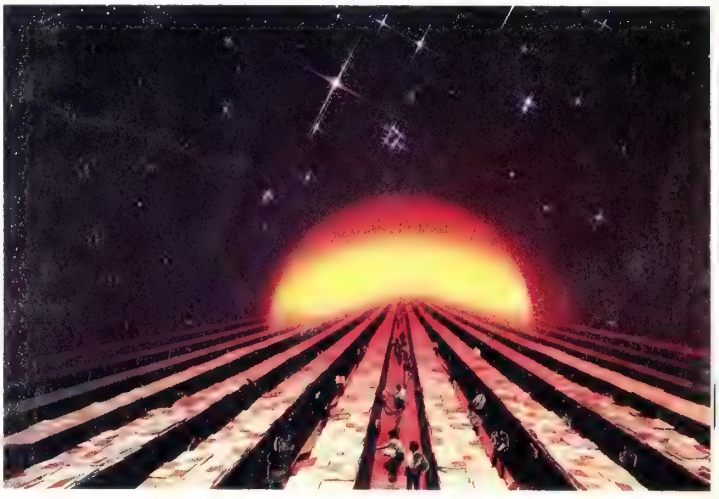
Kodak, the recognized worldwide expert on color, has finally solved the problem of making true color possible in today's desktop computers.

At Last, A Color Standard for Computers

With the Kodak color management system (KCMS), not only is what you see what you get, but also the color you see is also the color you get. Ask anyone who works with color in computers, and they will tell you that that is a breakthrough.

Designed to maximize speed, quality, and flexibility, the Kodak color management system is device and operating system independent, which means it will work the same everywhere, every time.

Because KCMS works with color and grayscale images in both standard and device-dependent color spaces, present systems will not be rendered obsolete or unusable.



THE BEST COLOR IMAGES IN MEMORY, FROM KODAK

Introducing Desktop Color Imaging, a new vision of computing from Kodak. Exciting new technologies that bring color standardization and photographic images to the desktop.

Desktop Color Imaging promises to redefine the visual impact of computer-based publishing, multimedia, desktop presentations and document management. Because it brings the incomparable quality and consistency of photographic images to the desktop. The new KODAK Photo CD System will make it all possible, with the most advanced array of hardware and software products for the capture, manipulation and output of photographic images.

And that's just the beginning. There will also be a major introduction of a device-independent Kodak system for achieving consistent color representation from screen to slide to printed page. See it all, only at The Sands Convention Center. For details, call 1 800 445-6325, Ext. 222.

The new vision of Kodak

© Eastman Kodak Company, 1990

Moreover, KCMS optimizes color computation and communication between devices in a system. That means faster and more economical use of today's computers.

Kodak will demonstrate the KCMS along with the Photo CD at the Comdex '90 exhibition this week.

We're Talking About the Future Here

"It is our hope here at Kodak," says Dr. John P. White, VP and General Manager of Integration and Systems Products, "that we can help the industry by providing an open color standard. We are sharing a color interchange space through license to anyone who wants it. And we're promoting its use throughout the electronic industries by collaborative alliances with as many players as want to get in the game. Ultimately, we're all in this together. The benefits to everyone, manufacturers and users, far outweigh any proprietary interests. We're talking about the future here."

The future he is referring to will begin in 1991 when the Kodak color management system and the tools that will make Photo CD images available for computer applications become commercially available. Using these tools and technologies, developers will be able to incorporate these new capabilities into their next generation of hardware and software products.

The Photo CD as Expanded Memory

The symbol of the new technology Kodak has created is a gold CD, the same size as audio CDs. The Photo CD will come with a liner jacket that is similar to a scaled down version of a photographer's proof sheet, showing the numbered, sequential photographs recorded to date on the enclosed gold disk.

Up to 100 photos can be stored on each disk, and photofinishers will add new images upon request. The images can be accessed individually or sequentially, and like the tracks on audio CDs can be programmed to play in any desired order.

In a sense, the Photo CD is expanded memory. Each color photograph consumes about 18 megabytes of computer storage space, roughly the equivalent of 10,000 pages of text. With most desktop computer systems today, hard disk drives offer less than 40 megabytes, which allows storage of only two photographs. The Photo CD, by comparison, stores 100 photos.

Many users who have already added ROM drives to their computers will not need to buy new equipment. The format of the Photo CD is fully compatible with a variety of existing CD products, including CD ROM XA and CDI disk drives.

New World of Color Images

"The Kodak Photo CD system will redefine the use of color images in computing," White predicted on September 18 when Kodak announced the product worldwide. "This little gold disk will set the worldwide standard by which users work with color images, from photographs or 35mm slides. For the first time ever, we have an affordable and practical way to bring the huge, untapped libraries of color pictures into the world of desktop computing."

In the way that desktop publishing changed how businesses, organizations, educators, and countless others communicated with their audiences, so too does desktop color imaging promise to enliven and enrich how people communicate with each other in electronic digital formats.

What Does It All Mean?

Desktop color imaging is one of those tools about which people will say, in retrospect, that they can't imagine not having it around. In the communications age, it is quite simply a new and fundamental tool to distill the times. And if a picture is still worth a thousand words, Kodak has just increased the international lexicon manyfold.

Printers and designers will benefit from the applications of DCI immediately. Their photographic library potential can be increased at will, and organizational nightmares of the past can be dispelled permanently.

"THE *KODAK* PHOTO CD WILL REDEFINE THE USE OF COLOR IMAGES IN COMPUTING."

Boardroom presentations will now have the colorful, professional look that previously involved weeks of processing and preparation time, and executives will be able to incorporate last minute changes as they occur.

Retailers will be able to catalogue parts and products clearly, cleanly, and at considerably reduced expense, offering their customers detailed and even multiple views of their merchandise.

The advertising and marketing communities undoubtedly will find their capabilities greatly expanded through faster and more detailed layouts and a broader choice of photographic designs, as will governmental agencies, service industries, health care professionals, and any business that uses photographic images to communicate.

An architect will be able to change the design of a building or alter its landscape, quickly, easily, realistically, and inexpensively. A graphic artist will make over the look of an ad or even create a new ad in moments, not hours. All by simply pressing a few buttons.

The Beginning of the Future

Where will desktop color imaging take the business community in the next few years? The answers, for there

are as many of them as there are potential users of DCI, are limited only by the imaginations behind the fingers on the keyboards.

This much can be said: from the desktop to the print shop, from the boardroom to the living room, DCI is certain to expand the ways people use photographic images in business and in their personal lives. And businesses of all sizes, from manufacturers of related technologies to individual desktop users, will face new and innovative growth opportunities.

Kodak is announcing this technology early in order to give hardware and software manufacturers sufficient lead time to create new applications and enhancements that businesses and consumers will demand in 1992 when the technology reaches store shelves.

"We see desktop color imaging as the first step," says Matteson, "in an exciting walk – some here are calling it a sprint – into the twenty-first century."

The text was written by Ron Bognore in conjunction with USA Chicage, Inc.
Art Direction by Platinum Design, Inc. NYC
Cover photo illustration by Frank Miller

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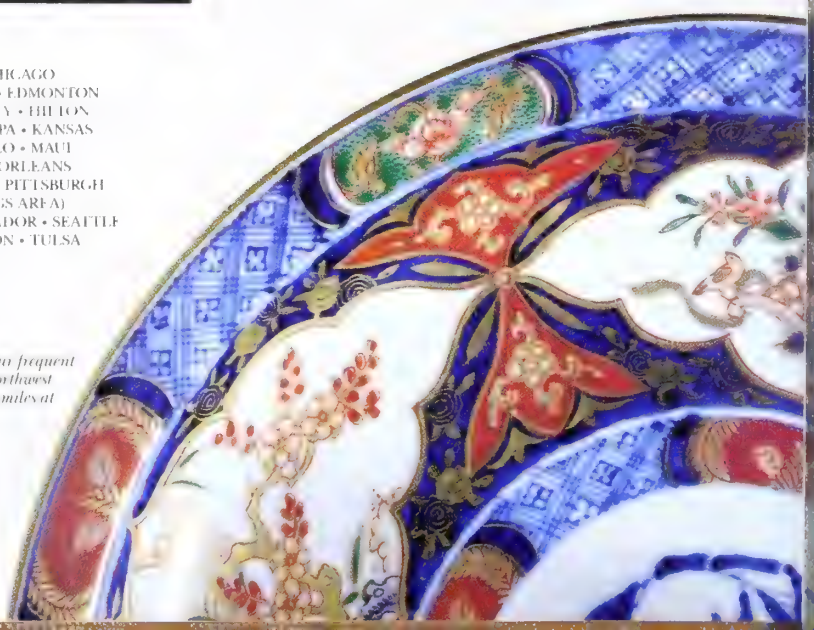


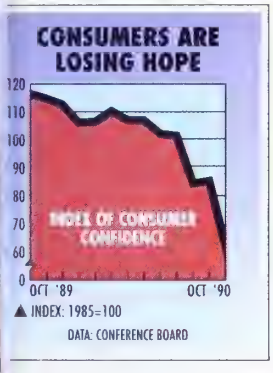
NOVEMBER 12, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

CONSUMERS GAVE —AND NOW THEY'RE TAKING AWAY

There's an old saying in economics: A slowdown is when your neighbor loses his job. A recession is when you lose yours. For many American households, the strain of the economy's problems is starting to hit home. The result: Years of consumer profligacy have suddenly turned to caution. And that's why the economy is headed for a fall.

Consumers are just plain scared. In October, the Conference Board's index of consumer confidence not only fell to an eight-year low, it posted the largest one-month drop in its 20-year history (chart). Another widely followed gauge, the University of Michigan's index of consumer sentiment, took a similar plunge to a level not seen since the 1981-82 recession.



The oil crisis in the Middle East and the budget turmoil in Washington certainly were special factors contributing to consumers' gloomy mood. But there are other more fundamental problems. The jobless ranks are swelling. Incomes are no longer keeping up with inflation. And heavy debt burdens are getting tougher to carry.

The Federal Reserve Board is trying to help, but consumers aren't likely to feel it any time soon. Now that a multiyear deal to trim the federal deficit is finally wrapped up, the Fed has delivered its promised cut in interest rates. It shaved the federal funds rate—the charge on overnight interbank borrowing—by ¼ of a percentage point on Oct. 30, to 7¾%.

The move was largely a nonevent in the financial markets, because it was so widely expected. The bond market, so important in determining fixed rates on mortgages and other consumer loans, was little affected by the tiny decline. Further easing seems likely in coming weeks as the indicators flash more signs of weakness. But in the meantime, consumers—and the economy—will continue to suffer.

REAL INCOME STARTS TO SLUMP

Don't be fooled by the healthy-looking rise in third-quarter gross national product. The 1.8% advance in real GNP was probably the economy's last hurrah. Consumers fueled the gain, but their prospects this quarter are bleak—enough so to sink the economy.

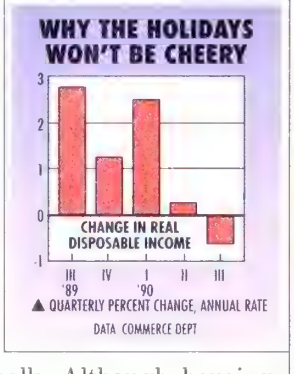
Consumer spending rose 3.6% in the third quarter. The gain was the strongest in a year, and it more than accounted for the overall increase in real GNP. However, outlays made little progress from July to September, and spending fundamentals are deteriorating rapidly.

The way consumers feel is one thing, but what's in their pocketbooks is more important. Real disposable income—earnings after inflation and taxes—has stopped growing (chart). It barely rose in the second quarter and then fell at a 0.6% annual rate last quarter. Given continued weakness in the labor markets, incomes will remain depressed in the fourth quarter.

On top of that, consumers had to dip into savings to pay for their spending spree. Savings as a percentage of disposable income fell to only 4%, the lowest rate in 2½ years. With incomes already sinking, that drawdown means consumers will be even more hard-pressed for cash during the upcoming holiday shopping season.

NEW-HOME SALES TAKE A BIG DROP

Elsewhere, the only notable strength in the economy last quarter was in capital spending for new plants and equipment. However, amid stagnant orders, declining operating rates, and sagging profits, outlays this quarter are sure to look much softer. The drags on GNP included a widening in the trade deficit and a big drop in homebuilding—for the second consecutive quarter.



Builders won't build what they can't sell. Sales of new one-family homes dropped 6% in September, to an annual rate of 503,000. That pace is a huge 21.1% below the year-ago level, and sales are at their lowest in eight years—since the last recession. The reasons: Mortgage rates are stuck around 10%. The baby bust is shrinking the pool of demand. And poor prospects for the economy make buyers balk. Although housing may not have much further to fall, it isn't likely to turn around until well into 1991.

Another drag on GNP was slower inventory growth. That's a bit of a curiosity, given large increases already reported in the monthly data for July and August. Moreover, the latest report on manufacturing inventories shows a 0.6% jump in September. During the third quarter, factory inventories rose a hefty 1.6%, a sharp acceleration compared to the second quarter when they actually fell. All this suggests that inventory growth could end up substantially higher when Commerce makes its revisions to third-quarter GNP in late November.

Despite what happens in other sectors, the outlook

ERIC HOFFMANN/BW

hinges on consumer spending. It makes up two-thirds of GNP, and the trend is not favorable. Even with the big third-quarter advance, inflation-adjusted spending has risen only 1% during the past year. Since World War II, real outlays have never posted such weak yearly growth unless the economy was in a recession.

LABOR COSTS ARE STILL RISING

The weak economy's impact on consumers' incomes is problem enough for many households. But stubborn inflation is further robbing buying power. That will be particularly evident this winter when homeowners fill up with heating fuel.

Along with GNP, the Commerce Dept. also reported that its fixed-weight price index—the economy's broadest measure of inflation—rose at an annual rate of only 4.1% in the third quarter. However, that index understated inflation. Since imports are subtracted from GNP, so are the oil-related price effects. Prices for domestic purchases, which add imports back in, rose a much faster 5%, up sharply from a 2.9% pace in the second quarter.

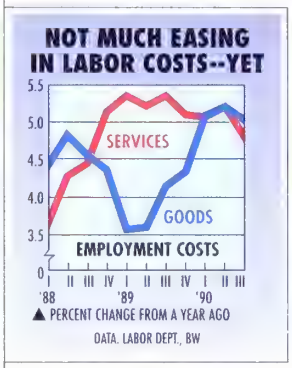
The fact is, even ignoring energy, there will be little headway in curbing inflation generally until labor costs start to edge lower. Despite the recent upturn in the unemployment rate, that still hasn't happened.

Employment costs for private industry workers last quarter were up 4.9% from a year ago. Although that's down from 5.2% in the second quarter, it's little changed from the pace in 1989. As has been the case throughout the expansion, benefits continue to outpace wages.

One disturbing sign is renewed momentum in compensation expenses at goods producers, especially manufacturers. Growth in labor costs in the goods sector slowed to 3.5% in early 1989, then picked up again to 5% in the latest period. That pace was actually faster than the growth of labor costs in the service sector (chart).

Part of the reason is that unions, which are more concentrated in the factory sector, are doing better than they did a few years back. New bargaining settlements so far in 1990 call for higher wage gains than were in the contracts they replaced. In the first nine months of 1990, the average contract called for a 3.9% wage gain in the first year, up sharply from a first-year increase of 2.3% the last time the same parties negotiated.

The rise in labor costs is worrisome for the inflation outlook, but the prospects are less troublesome in the factory sector, where productivity gains have helped to offset part of the rise in compensation. In services, however, productivity is going nowhere. The rapid rise in labor costs puts a floor under service inflation, because companies will seek to raise prices to cover their costs. That's why reducing service inflation will take time.



Meanwhile, weak demand will begin to make it difficult for many companies—both in the goods and service sectors—to make price hikes stick. In that case, the continued rise in labor costs will cause further erosion of already sick profits and still more cuts in payrolls. But that's the price of lower inflation.

In fact, the labor markets will have to loosen up a lot more if labor-cost growth is to slow appreciably. In the past, the unemployment rate has been above 6% when labor costs have grown at or below 3%. That means about half a million more workers will have to be laid off before there are enough job seekers to exert some downward pressures on wage growth.

Given the sluggishness in domestic spending and the recent jump in jobless claims, the unemployment rate could well move above 6% by yearend. That may eventually help inflation, but in coming months, it will only reinforce consumers' expectations that the economy is going to get worse before it gets better.

THE WEEK AHEAD

PRODUCTIVITY

Tuesday, Nov. 6, 10 a.m.

Output per hour worked at nonfarm businesses probably increased at an annual rate of about 1% in the third quarter, following a 1.5% gain in the second. That increase in productivity is suggested by the growth in domestic output, which was much greater than the rise in the number of hours worked in the nonfarm sector. However, most of the gain was likely concentrated in manufacturing, which should post a 4.5% rise in productivity, at an annual rate. In the second quarter, output per factory hour rose by 4%. The gains in productivity should offset some of the rise in compensation costs. Still, unit labor costs in the nonfarm business sector probably rose about 4%, after advancing 4.4% in the second quarter. Manufacturing unit labor costs likely increased at a much smaller 1% annual rate following a 2.5% pace in the second.

CONSUMER INSTALLMENT CREDIT

Wednesday, Nov. 7

Consumers probably added about $2.2 billion in installment credit to their debt loads in September, according to economists surveyed by MMS International, a division of McGraw-Hill Inc. The September gain is suggested by increases in new-car sales, nonauto retail purchases, and personal loans at commercial banks. In August, installment debt grew by $2.1 billion, with the biggest chunk coming from revolving credit, including credit cards. That debt category increased $1.8 billion in August.

PRODUCER PRICE INDEX

Friday, Nov. 9, 8:30 a.m.

The MMS consensus expects another hefty gain in the producer prices of finished goods in October, probably about 0.8%. That follows a 1.3% jump in August and a 1.6% surge in September. The gain will be driven by energy costs. Excluding the volatile food and energy components, prices are projected to rise just 0.3% in October, after increasing 0.6% in September. With the expected October gains, producer prices are up 6.2% from a year ago, but just 3.7% when food and energy are excluded.

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FACING THE MUSIC BACK HOME

BUDGET FALLOUT IS DRAMATICALLY CHANGING THE LOOK OF MIDTERM ELECTIONS

There has seldom been an election finale quite like it, and shell-shocked Republicans hope never to see another. For months, GOP candidates seemed to be cruising toward an uncommonly good showing for a midterm election. President Bush, his halo and popularity intact, was raising record amounts of money for party coffers. And the Democrats were, as usual, running off in all directions and whining about an abstraction called the budget deficit.

But when the first chilly gusts of October blew through Washington, the bottom fell out of the Republicans' electoral daydream. During a month of budget chaos, Bush vacillated over taxes, and Democrats painted the President as guardian of tax breaks for the rich and famous. Bush's polls nose-dived, and as lawmakers trudged home to face angry voters, the capital hummed with a key question: Can the Democrats' deft handling of the tax "fairness" issue play as well in the boondocks as it has in Washington?

COUNTRY-CLUB SET. Unfortunately for the GOP, the answer appears to be yes. Voters are stomping mad over Bush's tax duplicity, Republicans' association with the wealthy, and incumbents' fondness for partisan wrangling and special-interest dollars. Increasingly, Democrats believe they can channel this fury to their advantage. Buoyed by new polls showing support for the GOP ebbing, Democratic candidates are casting themselves as populists and skewering Republicans as protectors of the country-club set. "The [fairness] issue is going to be fabulous for Democrats," says a senior GOP strategist. "Bush blew it when he gave away the no-tax pledge and proclaimed 'victory' by defeating a [Democratic] surtax on millionaires."

Democrats can't afford to be smug, however. That's because a wave of rage—over the economy, the savings-and-loan fiasco, and congressional pay—could wash over all incumbents. "The anger is visceral," says R. Marc Nuttle, director of the National Republican Congressional Committee. "People are fed up with all of government."

For the moment, the brunt of the anger is falling on Bush. He has made plans for a final week of frenetic campaigning. But GOP candidates are nervous about the trips. Texas gubernatorial contender Clayton Williams welcomed a late visit from his fellow Texan. Minnesota's struggling Senator Rudy Boschwitz hemmed and hawed before saying yes. But Bush may not revisit North Carolina for embattled Senator Jesse A. Helms. Both there and in Texas, GOP officials privately say they would get more out of hoped-for appearances by Ronald Reagan, the man with the Teflon lips. Says Democratic pollster Geoffrey Garin: "It's the final week, and Bush's dance card isn't full."

To bounce back, Bush is pursuing a two-track strategy that few of his own advisers think will work. He has stepped up his rhetoric against Iraq to divert attention from domestic woes. And he's trying to convince voters that the Democrats made him accept a budget that relies more on tax hikes than on spending cuts. "You'll see Rambo Bush on the counterattack," says one top GOP adviser. "It won't work."

When the smoke from Election '90 clears, Democrats hope to pick up a dozen House seats, up to two Senate slots, and hold their own in the statehouses. That's a far cry from the GOP's lofty plan of using the elections as a springboard toward realignment. For a look at how the battle over economic equity is playing in the trenches, BUSINESS WEEK correspondents followed four incumbents home for their rendezvous with voters. Their reports:

FLORIDA DEMOCRAT REID HUGHES HAS PULLED INTO A DEAD HEAT AGAINST REPRESENTATIVE CRAIG JAMES, WHO IS STRUGGLING TO DISTANCE HIMSELF FROM BUSH AND THE BUDGET DEAL

FLORIDA: AN INSIDER TRIES RUNNING AS AN OUTSIDER

Just a month ago, Representative Craig T. James (R-Fla.) had a comfortable lead over his millionaire opponent, Reid B. Hughes. He had a pretty good issue, too: opposition to new taxes. But after three weeks of budget wrangling in Washington and a big tax hike, James limped home to his northeaster

Florida district to find himself in a dead heat.

At every opportunity, the Republican incumbent struggles to distance himself from the budget deal. "I just hope I can get it across to people that I voted against this budget," says James. But his opponent seizes every chance to remind voters that James and President Bush are from the same party.

A lawyer, James was a political newcomer when he upset 10-term Democrat Bill Chappell in 1988. He lambasted Chappell, who had been linked to a defense scandal, as the embodiment of all that was wrong with Congress. Now, James is finding it tough to run as an outsider from the inside.

TIME FLIES. For one thing, James is one of Congress' biggest users of free mailings. When he voted against a pay raise, James used his franking privileges to tell voters that he was forgoing his pay hike. "He spent $80,000 to tell people he was saving them $7,000," says Hughes campaign chairman Kolby Peterson.

Then there's special-interest money. In 1988, James hammered Chappell for taking contributions from defense contractors' political action committees. But James accepted $135,000 in PAC funds for this race. James says none comes from PACs with an interest in legislation he oversees.

Even if he could convince people that he isn't to blame for the Washington mess, he may not have enough time. James was stuck on Capitol Hill for most of the campaign's last month, while Hughes logged thousands of miles in the district.

Now, Bush's sinking popularity is dragging James down. "Not one more damn Republican," says George Quinlieri, a registered independent. "Bush and the whole lot have lied to us on medicare, defense, taxes—you name it." James, too, wonders about Bush's moves. "I wasn't in on the closed-door meetings to find out why he flip-flopped," he says. "What counts is that I broke with him immediately." But with Bush's suit of negative coattails, immediately may not have been soon enough. *By Antonio N. Fins in Daytona Beach, Fla.*

GOP SENATOR BOSCHWITZ IS BEING CHALLENGED BY PAUL WELLSTONE, WHO ATTACKS THE INCUMBENT'S 11TH-HOUR APPEAL TO BUSH TO BLOCK TAX HIKES FOR THE RICH

MINNESOTA: SEX, LIES, AND SWIMMING POOLS

Elsewhere around the country, Republican incumbents may be sweating blood over the budget mess and President Bush's flip-flopping. In Minnesota, GOP Senator Rudy Boschwitz wishes a tax rebellion were all he had to worry about as he seeks a third term.

The state Republican party has been ripped apart by the saga of Sex, Lies, and Swimming Pools. GOP gubernatorial nominee Jon Grunseth was forced out of the race amid charges that he swam nude with several teenage girls and had extramarital affairs. And Carleton College political scientist Paul D. Wellstone, the all-but-unknown Democratic Senate challenger, has seized on an ugly anti-Establishment mood to turn what was supposed to be a Boschwitz romp into an even race.

Wellstone, who has never held public office, is blasting Boschwitz as the friend of the rich and powerful. An unabashed liberal and a fiery orator, Wellstone attacks his opponent for his 11th-hour appeal to President Bush to block tax-rate hikes for the richest Americans.

TRANSFIXED. As soon as Boschwitz cast his vote in favor of the budget compromise—the only Republican Senator in a tight race to do so—he donned his trademark red plaid shirt and plunged into the Minnesota maelstrom, attacking his challenger as a "radical fringe" candidate who is itching to double taxes. But it's not clear that Minnesotans are paying much attention to pocketbook issues when they're transfixed by a steamy statehouse race. Boschwitz' first mission back home was to persuade Grunseth to drop his challenge to Democratic Governor Rudy Perpich in a race that has been dubbed "Governor Goofy vs. the Naked Norwegian." Says a Boschwitz aide: "It's hard to run alongside an accused child molester." Grunseth denies the charges involving the teens.

Further sex-related charges finally forced Grunseth off the ticket. But Boschwitz angered the state's powerful antiabortion forces by urging that pro-life Grunseth be replaced by a pro-choice primary loser, Arne Carlson.

Boschwitz has $1 mil-

AFTER A CLOSE ELECTION IN 1988, THE GOP THOUGHT BONIOR WAS VULNERABLE, BUT THE LIBERAL CONGRESSMAN IS A MASTER OF DOOR-TO-DOOR POLITICS—AND HAS RAISED $1 MILLION

lion stashed away for a media assault on the cash-strapped Wellstone in the campaign's last week. But money may not be enough. Julie A. Mattson, a 51-year-old mental-health counselor in Mendota Heights, has voted for Boschwitz twice. But now, she says, "I'm voting against all incumbents. We need to throw everybody out and start with a new batch."

By Russell Mitchell in Minnesota

MICHIGAN: MENDING FENCES WITH THE LITTLE GUY

Representative David E. Bonior may be a rising star in the House Democratic leadership. But back home in his blue-collar, suburban Detroit district, Bonior isn't hearing much applause: The seven-term congressman voted for a budget deal that raises taxes on beer and gasoline, and voters are teed off about it.

At a Bonior lunch for senior citizens, Omero DeRubeis, 69, munches on a hot dog and gripes about the $500,000 set aside in the huge package for a Lawrence Welk museum in North Dakota. Bonior agrees: "There are things like that we gotta get out of there." He concedes the legislation raises $140 billion in new taxes, but says: "We've got this deficit. We can't pass it along to our grandchildren." Besides, he boasts, "we hit the wealthy people really hard." Then, Bonior is deflated when another senior ventures: "I'm not getting a raise. I understand you're getting a raise."

With sentiments like that out on the hustings, it's a good thing Bonior is a master of door-to-door politics—and fund-raising. After the liberal Bonior squeaked by in 1988 with only 54% of the vote, Republicans thought he was vulnerable. But Bonior has raised $1 million for his campaign war chest, much of it from labor political action committees. His Republican challenger, James Dingeman Jr., vice-president of a small steel company, has wound up strapped for campaign funds despite his personal wealth. He has collected only $260,000.

POPULIST BLEND. As he greets seniors at a Lion's Club, Bonior knows what really counts with his mostly Roman Catholic, lower-middle-class voters. He keeps stressing his devotion to social programs. He leaves behind leaflets playing up his role in protecting Social Security benefits from the budget ax.

By offering a blend of populism and pork-barrel politics, Bonior has gained a comfortable lead. But he's not resting yet. His 46-year-old Republican challenger was quick to capitalize on the Washington budget debacle, and he rails against an entrenched Congress that taxes too much and won't cut spending. As he works the crowd at a Roseville bowling alley, Dingeman's message strikes a chord with voters such as autoworker Mike Kornak. "I think we should vote 'em all out," Kornak fumes. "They been in there too long."

Public disgust with business as usual in Washington hasn't made Bonior's life any easier. But his skill at politicking and his canny ability to portray himself as the champion of the little guy should help him survive the ire of all the Mike Kornaks in his district this time around.

By James B. Treece in Roseville, Mich.

CHALLENGER ALLY MILDER WAS EXPECTED TO HAVE AN EASY TIME AGAINST DEMOCRATIC INCUMBENT HOAGLAND. THE EXPERTS DIDN'T FORESEE BUSH'S AUTUMN SWOON

NEBRASKA: STICKING WITH THE ONE THEY KNOW

Republicans have been lying in wait for Representative Peter Hoagland for two years. The freshman Democrat carried his district—which covers Omaha and surrounding counties in eastern Nebraska—with just 51% in 1988. The GOP looked forward to running a strong challenger in a district that has grown steadily more Republican over the past decade. Strategists felt confident Ally Milder, a spirited and outspoken former Senate aide, could win.

The experts didn't count on two things: President Bush's autumn popularity dive and Hoagland's savvy use of incumbency to make voters feel he's an insider who hasn't lost touch with the folks. Polls show Hoagland, the soft-spoken member of a prominent Omaha family, riding a 17-point lead.

MASTERLY. Despite the mess in Washington, Omahans appear comfortable with an incumbent. They grumble in supermarkets and coffee shops about the budget mess. But they seem more disappointed with Bush, the old Washington hand, and less inclined to take it out on newcomer Hoagland. "The main reason they couldn't get a budget was because Bush had to help all those rich people," complains Mary Mesic, a homemaker loading up her shopping cart. "Congress heck, let them dilly-dally. They can shut down the government. Just as long as they leave my Social Security alone."

Hoagland has done a masterly job of inoculating himself against voters' wrath. Bucking pressure from House Democratic leaders, he voted against both the original bipartisan tax-and-spending package that was defeated on the House floor and the final deal. He justified his vote by saying that agricultural subsidy cuts and gas tax hikes would hurt Nebraskans.

But Hoagland also praises the budget for hitting the rich with higher taxes. The deal "is closer to Democratic values than what we ever could have dreamed of five months ago," he brags.

Hoagland's ability to play both sides of the fence has infuriated and stymied Milder, 35, a no-new-tax conservative who made her allegiance to Bush a keystone of her race. Bush's embrace of tax hikes left her out on a limb. With a $600,000 war chest, Milder has launched ads attacking Hoagland for abusing his free mailing privileges and supporting medicare cuts. But in the year of the outsider, Milder's background as a former legal counsel to a Senate subcommittee hasn't helped her cause.

A recent *Omaha World-Herald* poll found that 56% of the public thinks Congress is doing a lousy job. But as is so often the case, voters in the Second District of Nebraska may hate Congress, but they're quite content with the performance of their man in Washington.

By Douglas A. Harbrecht in Omaha

THE BUDGET: NEVER MAKE A TOUGH CHOICE TODAY . . .

An analysis of the final deal finds policy unchanged and the most sacred cows untouched

This year's Battle of the Budget is over. It has been a decade, at least, since Washington has endured such a wrenching struggle. This one started 21 months ago—almost as soon, in fact, as President Bush was inaugurated. And before he and Congress gave final shape to the sweeping agreement intended to come to grips with the budget deficit, they had stretched the political system to its limits.

In the end, they reached a deal to reduce planned spending and raise taxes by a bit more than $40 billion in fiscal 1991 and by a bit less than $500 billion over the next five years. Along the way, the government shut down once and was brought to the brink of closing twice more. For a time, it seemed as if no one could listen, lead, follow, or govern.

OPEN REVOLT. The long, unseemly spectacle has cost elected officials dearly. Congress, which voters already viewed with a healthy contempt, has fallen even lower in public esteem. Bush, who entered the fray supported by nearly 80% of the public, left the encounter with his popularity at less than 50%. Just days before the election, his party was in open revolt, and Republican strategists were publicly advising GOP candidates to run away and hide from their President (page 40).

Perhaps most galling—and detrimental to the national interest—Congress and the President provoked all the raspberries without managing to make fundamental policy shifts. Instead, they adopted a sort of cryogenic budget—freeze everything and hope for the best. In fiscal 1991, the deficit could top $300 billion, even with the new agreement. By 1995, when the budget is supposed to be balanced, the deficit will be about $175 billion, not much improvement from the $220 billion deficit in the fiscal year just ended (chart). Remove the Social Security surplus, and the deficit will top $250 billion.

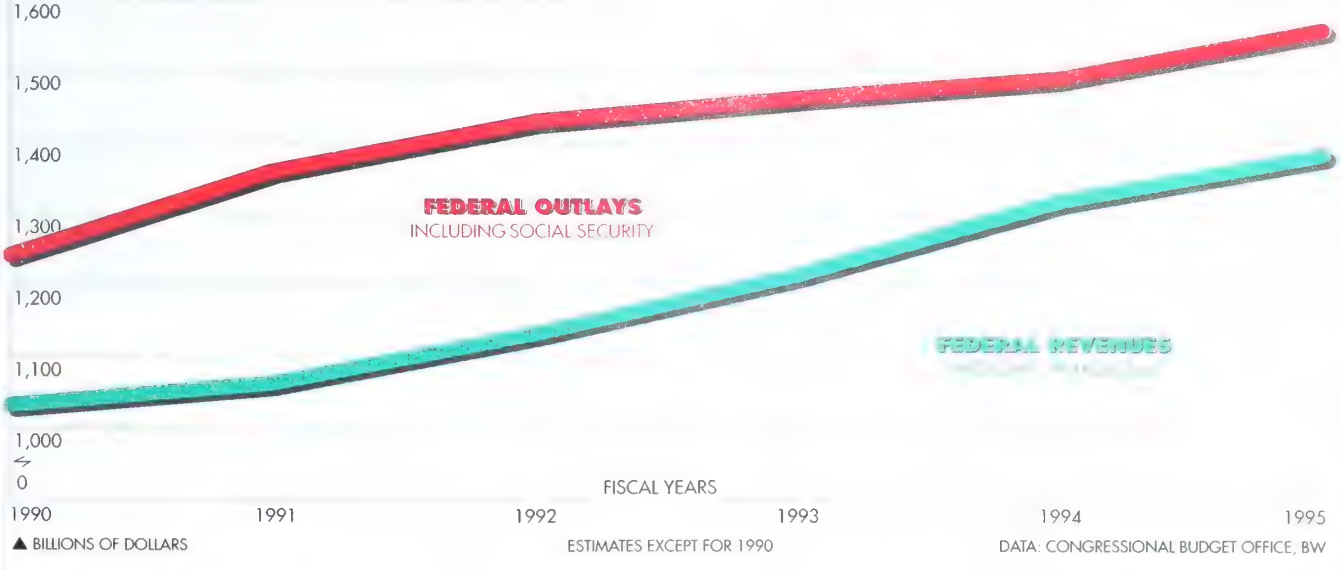
If that happens, politicians will be forced to revisit the choices that were so agonizing this year. And the rewards will be just as scant: It's a safe bet that public opposition to tax increases or spending cuts won't abate.

From here, the protests will only grow louder. Taxpayers now give the federal government 20% of their income on average. And an increasing share of what's left will go to state and local governments. In the past, those levels of taxation produced widespread voter revolts. In 1980, disgust over a similar tax burden swept Ronald Reagan into the Presidency. But the massive deficits won't permit politicians to offer the public much relief from record-high tax rates.

When lawmakers return for the next round of the great deficit tussle, they'll have to consider big spending cuts, none of them easy. The most obvious target will be spending on the elderly, which threatens to dwarf all other federal programs. In fiscal 1990, the government spent nearly $300 billion on medicare and Social Security. In 1995, it expects to spend over $500 billion—more than the cost of defense, foreign aid, and all other discretionary programs combined.

Yet Congress and the President have never mustered the will to buck opposition from senior citizens. The new budget increases medicare premiums and deductibles by a mere $10

THE DEFICIT THAT ISN'T DISAPPEARING



billion over five years. By contrast, it raises the medicare portion of the payroll tax on working people by $26 billion.

High taxes. Intractable spending. Huge deficits. "The size of the problem has gone beyond the ability of the political system to resolve it," says John Cogan, a Reagan Administration budget official. "Something has to give."

The pressures are sure to mount because the agreement does little to change the priorities that have shaped government spending for the past 25 years. The transfer of income from workers to retirees will continue to accelerate. The defense budget is squeezed, but the military's role in a post-cold-war world remains uncertain. And no one has any idea of a politically acceptable way to make the tax system yield the revenues the government needs.

The new budget does reflect some marginal changes in national policy. The much-anticipated "peace dividend" provided some new money for housing, child care, and roads—programs that took a brutal beating during the Reagan years. And a new buzzword—fairness—dominated the tax debate.

Just as important, the budget agreement reflected a growing consensus on the limits of fiscal policy. Republican cries for a tax cut to head off a possible recession went unheeded. The political system seemed to recognize that fiscal policy can't avert an impending recession.

WINDFALL? Throughout the budget debate, Treasury Secretary Nicholas F. Brady insisted that reducing the deficit was the best medicine politicians could administer to the sickly economy. A dose of spending cuts, he hoped, would give the Federal Reserve Board enough latitude to cut interest rates. That view flies in the face of the Keynesian creed, which holds that government spending can spur economic growth. And it's an equally big shift from the Reagan Administration's faith that tax and spending cuts were the ticket to economic health. The fate of the expansion, the elected government decided, would be left to the unelected Fed and its monetary policy. Rarely do politicians concede such impotence.

The defense component of the budget marks a much less significant change in political dogma. By holding defense spending at 1990 levels for the next three years, the agreement ratifies the end of the cold war and recognizes fundamental changes in the Soviet Union and Eastern Europe. Yet the new budget merely puts defense policy on hold. A long-term strategic review is still desperately needed. No major weapons systems have been eliminated. Even modest savings in the new budget are doubtful, since much of the money is likely to be spent on the Persian Gulf buildup. Real decisions won't be made until after 1992, if then.

While defense stands in place, spending at home is in for a bit of a windfall. Notwithstanding all the budgeteers' talk of pain, domestic programs will get an extra $20 billion this year, the biggest increase in years. Everything from Head Start to NASA to highway construction will enjoy a few more dollars. "Every single major program we follow got an increase," says Frank Shafroth, chief lobbyist for the National League of Cities. "That's the first time we've seen that in 10 years."

Some of the new money is needed. But, once again, Congress and the President could not distinguish between priority spending and waste. For this year, Bush agreed to allow spending hikes virtually across the board. In 1992 and 1993, the new budget envisions a different arrangement. All domestic spending—except mandatory programs such as Social Security and medicare—must compete against one another for a fixed pool of money. In determining the cost of each program, the White House, not Congress, will have the final say. Thus the President will determine how much must be cut from the

THE BUDGET BATTLE IS OVER— UNTIL THE NEXT ONE

It took 21 months of feints, posturing, trial balloons, and plain old arm-twisting. The government shut down once and was on the brink of doing so twice more. But in the end, Congress and the President came to terms on a sweeping agreement intended to address the budget deficit head-on. The key word, though, is "intended." The budget negotiators failed to make the fundamental policy shifts needed to stem the rising tide of red ink. Sooner or later—and probably sooner—politicians will have to revisit the choices that proved so agonizing this year

DOMESTIC DISCRETIONARY SPENDING

Despite all the talk of pain, domestic programs will get an extra $20 billion in fiscal 1991, a increase, and will rise by the rate of inflation in 1992-93. As much as $24 billion in claimed ings" comes from increased fees on everything from boats to mining claims. A few dollars cut from veterans' programs, and pension benefits are reshuffled for government employe There's one big change ahead, though: In 1992 and 1993, all domestic spending except ma tory programs such as Social Security and medicare must compete for a fixed pool of mon

spending pool to finance a new project. Such a scheme may keep total spending in check, but it does nothing to distinguish between good programs and bad. Once again, the political system has punted.

Even serious cuts in those domestic programs would be swamped by the growing costs of programs for the elderly. Medicare, which is supported by a trust fund similar to Social Security, is paying out more than it takes in each year. By the turn of the century, the fund will be broke. Modest premium increases will hardly dent the problem. "This kind of thing is a Band-Aid on an open sore," says health-policy analyst Jack A. Meyer. "It was another example of Congress buckling under to pressure from advocates of the elderly."

Perhaps the only real spending reductions came in farm subsidies, which were slashed by about $15 billion over five years. Farmers, who have done relatively well the past couple of years, didn't rally in large numbers against the loss of their subsidies.

Overall, though, domestic spending is virtually untouched. "We've made no fundamental changes in the spending pattern for domestic programs," says former Senate Budget Committee staff director Stephen E. Bell. "This agreement has signaled a kind of bilateral disarmament on this question."

So where did the money come from? Taxes—where else? The year that began with "no new taxes" ended with nearly $137 billion in income- and excise-tax hikes, plus an additional $24 billion in user fees. For the third time in eight years, Congress has passed a major tax hike in an election year.

Taxes were raised in the name of equity for the middle class. Democrats, sensing they had finally found a voter-friendly theme, have latched on to the fairness issue. They will surely use it to push for further tax hikes.

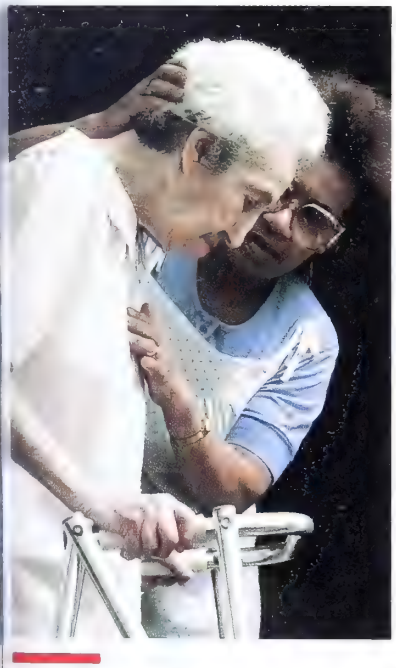
Just as surely, Republicans will argue for spending cuts instead. But the budget battle showed that the GOP has no more stomach for major spending reductions than do the Democrats. In mid-October, rebellious House Republicans tried to push their own no-tax budget, but they couldn't hit the $500 billion deficit-reduction target that the White House and congressional leaders had set. The reason: They ran smack into the medicare wall. Says Representative Bill Frenzel (R-Minn.), the senior GOP member of the House Budget Committee: "Sometimes when you scratch a Republican, you find he has more of a problem with medicare cuts than with tax increases."

The budget battle demonstrated that the Republicans had no more stomach for major spending reductions than the Democrats

Eventually, and more likely sooner than later, politicians will have to face the choices they avoided in 1990. By this time next year, the deficit will almost surely top $300 billion, and depending on how you count, it could hit $400 billion. Then the public and its elected representatives will once again face some familiar choices. The government simply cannot hold down taxes and meet the ever-rising cost of medicare and Social Security if it wants to balance the budget.

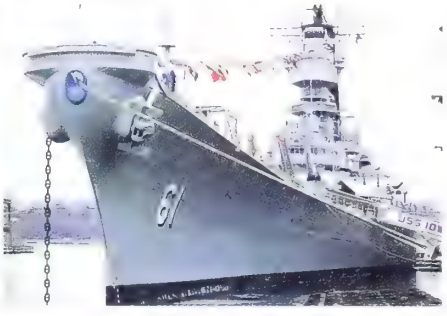
It's a thankless task. Deficit reduction wins no public support, only abuse from those who lose subsidies or see their taxes raised. And it's hard to show any immediate benefit. There's no evidence that cutting the deficit will result in sharply lower interest rates or a burst of economic growth. But if the government cannot resolve the mess, the U. S. will remain paralyzed—unable to cut taxes, spend money for crucial programs, or do much but wallow in the deficit quagmire.

By Howard Gleckman in Washington



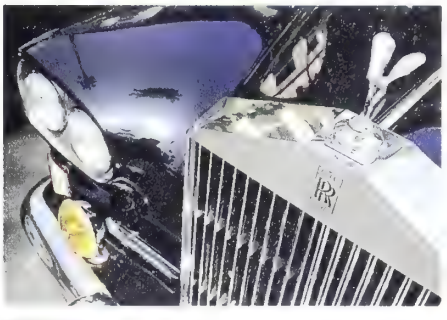
ELDERLY

Security benefits are untouched. Medi-remiums and deductibles increased by 10 billion over a five-year stretch. The t bill squeezes out $32 billion in further ;s by cutting reimbursement payments tors and hospitals



DEFENSE

Congress, recognizing the enormous changes in the Soviet Union and Eastern Europe, will freeze most Pentagon spending at slightly below the $299 billion spent in fiscal 1990. The big exception: Operation Desert Shield, which is exempted from the spending cap



TAXES

The hikes in income and excise taxes add up to a $137 billion increase over five years. The top income tax rate is 31%; deductions and personal exemptions are limited for high-income individuals. Taxes go up on luxury items, alcoholic beverages, gasoline, and gas-guzzlers

AGRICULTURE

One of the few real spending reductions in the package. The plan cuts about $15 billion from planned 1991-95 spending for agricultural subsidies and farm loans. Few subsidy programs are eliminated, but most are cut back

INVESTMENT

AMERICA DOESN'T LOOK SO LUSCIOUS TO JAPAN ANYMORE

Tokyo's crash has hurt investment in U.S. stocks, bonds, and real estate

Japanese real estate developer Maruko Inc. intended to make a killing. Last spring, when it bought the posh Hyatt Grand Champions Resort in Indian Wells, Calif., from Resolution Trust Corp. for $66.5 million, Maruko planned to nearly double its money by selling partnerships in the 344-room tennis-and-golf complex to 150 Japanese investors for $120 million. But when the Tokyo stock market crashed this summer, interest in the partnerships suddenly evaporated, and Maruko found itself stuck with the resort hotel. Says a Maruko official: "A lot of our customers are putting off investments."

Maruko's clients aren't the only Japanese avoiding America. Over the past several years, Japanese investors have pumped hundreds of billions of dollars into U.S. stocks, bonds, real estate, loans, and corporate takeovers (charts). But even though Japan will still invest some $81 billion overseas this year (page 59), figures Kenneth S. Courtis, Deutsche Bank's Tokyo-based senior economist, the cash flow is definitely slowing.

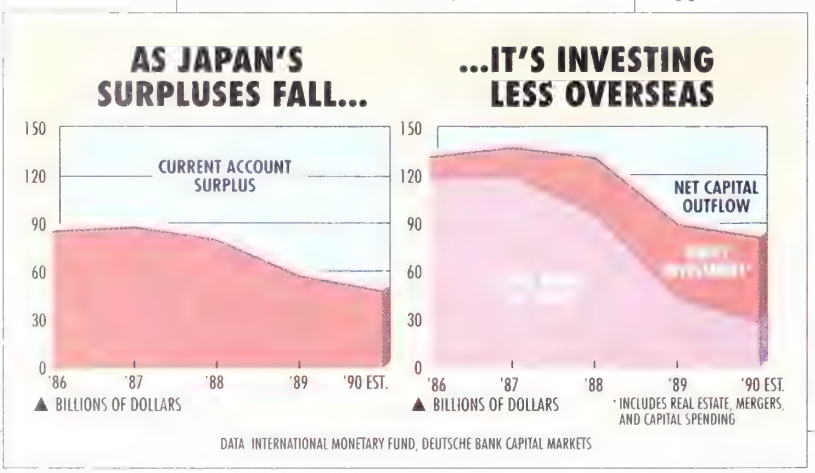
Despite such headline-grabbers as Matsushita Electric Industrial Co.'s contemplated $8 billion takeover of MCA Inc., Japan will send 9% less abroad this year than it did in 1989—and 40% less than in 1987. The U.S.—the recipient of more than half of Japan's overseas investment—will inevitably feel the cutbacks most. "There's no new money coming in," says Ko-Yung Tung, a U.S.-Japan merger expert at the New York office of attorneys O'Melveny & Myers. That could be bad news for a nation that has grown used to having Japan finance everything from leveraged buyouts to the budget deficit.

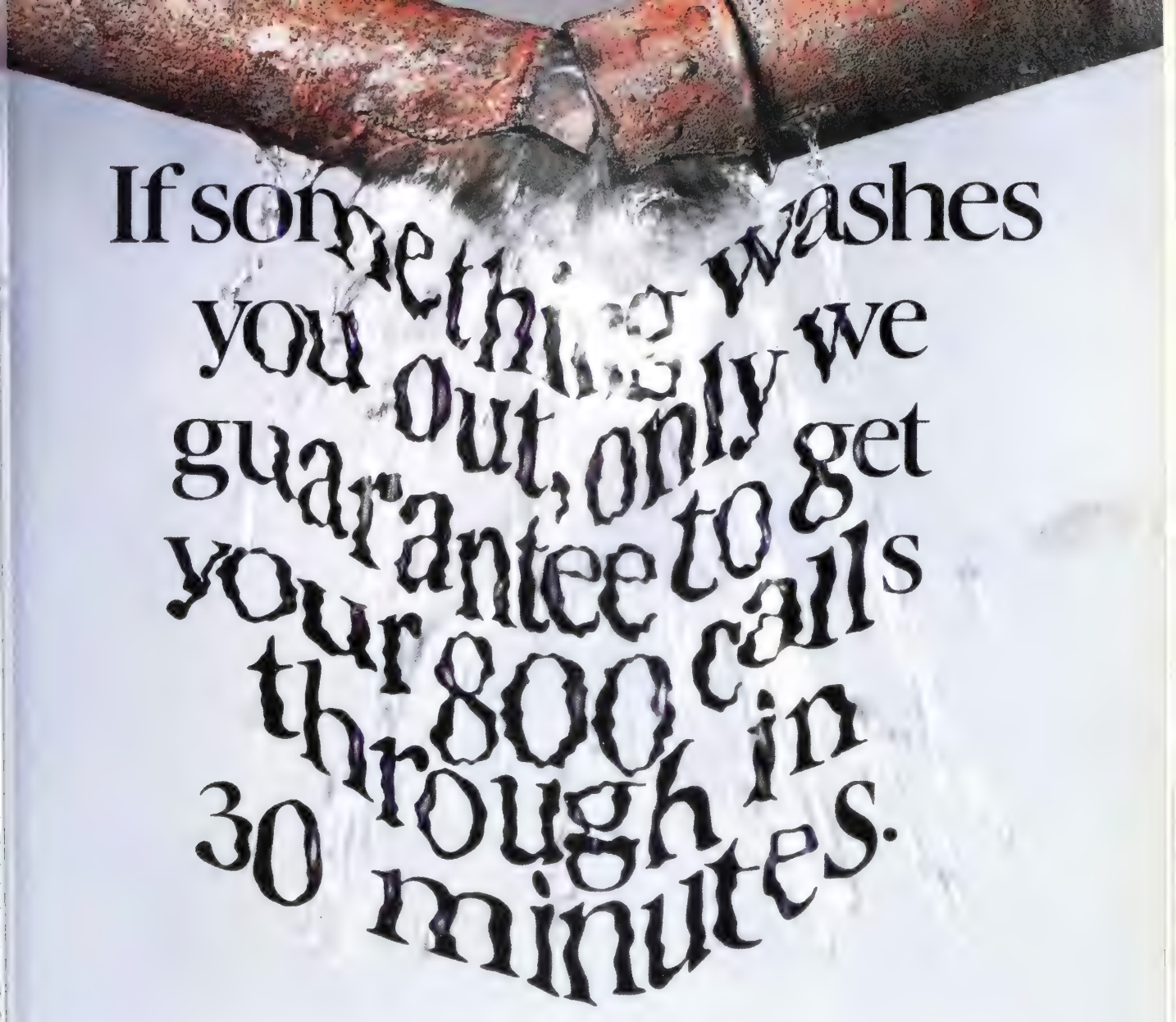
RATE RISE? It's small wonder that the Japanese want to keep their yen at home. The Tokyo stock market is down 35% this year, the dollar is weak, and the U.S. economy is near recession. Japan's current-account surplus is down 45% since 1987, leaving the nation's exporters less cash to throw around. And at 8.25% Japanese interest rates—long among the world's lowest—now exceed those in the U.S., where rates are falling.

As America's appeal dwindles, signs of the new Japanese caution are showing up from coast to coast. For example, Haseko Corp., a real estate firm, is having a hard time selling New York condominiums to Japanese buyers. Japanese banks, which now account for more than 10% of all U.S. banking assets, are suddenly cutting back on new lending. And everyone is shunning U.S. government debt. In the first half of 1990, Japanese insurers and other investors dumped $8.3 billion worth of Treasury bonds—a third of their purchases over the previous two years. On Nov. 6-8, the Treasury will sell an additional $34.25 billion worth of bonds. If the Japanese remain cool, the Federal Reserve may have to reverse its recent rate cuts to win them back.

Even that may not be enough to placate Japan's mammoth insurance companies. With rising Japanese rates nearly doubling the amount insurers must pay policyholders, the companies' U.S. assets are no longer providing them with a high enough return. Take Nippon Life Insurance Co., which has already unloaded an estimated $600 million worth of U.S. bonds. Now, it's souring on real estate. After purchasing $2.4 billion worth of U.S. property in recent years, Nippon Life has turned pessimistic over the growing glut of U.S. office space and has stopped buying entirely. "There's no longer a compelling reason for us to invest in the U.S.," says Keiji Tsuda, the insurer's deputy general manager for international securities.

Many big banks agree. The Tokyo crash erased more than $150 billion from the portfolios of the major Japanese banks, and many





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are facing mounting problems with real estate loans at home. So they are less willing to expand abroad. Over the past year, Yasuda Trust & Banking Co. has dumped $250 million worth of shares in Merck, Eli Lilly, Disney, Boeing, and AT&T, to name a few. And other banks are shrinking their U. S. loans after several years of 20%-plus annual growth. Fuji Bank Ltd., a lender to LBOs such as those of RJR Nabisco Inc. and Black & Decker Inc., now plans to reduce its $60 billion in U. S. assets by as much as 5% this year, either by selling some loans or not renewing them. "We have very scarce resources," says Masahiro Nagayasu, a vice-president at Fuji's New York branch.

REAL ESTATE WOES. The banks' new tightfistedness is also taking a toll on Japanese real estate purchases. Aggressive dealmaking and easy credit helped make Kumagai Gumi Co. the biggest Japanese construction company in the U. S. But recently, Kumagai put nearly $2 billion worth of U. S. properties up for sale to help reduce its $5 billion bank debt. Shuwa Co., another debt-laden developer best known for its Atlantic Richfield Plaza complex in Los Angeles, may also trim its $2.8 billion portfolio. This year, it has bought several properties, including office towers in San Francisco and Philadelphia. But Japanese banking sources say Shuwa has recently placed a few of its smaller Los Angeles properties on the block.

Corporate takeovers will probably be the last to feel the full impact of the Japanese slowdown. But even there, signs of weakness are apparent. In September, Aoki Corp. canceled a planned $400 million takeover of Swissair's international Swissôtel chain, partly because it was having trouble financing the purchase of Swissôtel's four U. S. properties. A Tokyo banking source says another planned U. S. takeover, worth at least $1 billion, has nearly collapsed because of "financial constraints."

Smaller deals are going begging, too. Hiroshi Minoura, a New York-based merger specialist with Mitsui Taiyo Kobe Bank Ltd., says Japanese corporate investors are shunning $100 million takeovers in favor of more modest ventures worth only $2 million or so. "Business is slowing down," he says. "We're frustrated."

Even more frustration is likely down the road. "We're reducing all of our U. S. investments," says Takahisa Iida, Yasuda Trust's top money manager. With nothing in sight to change his mind, the U. S. may have to get used to a more meager diet of Japanese cash.

By Ted Holden in Tokyo and William Glasgall in New York, with bureau reports

Commentary/by Larry Light

DEBT IS NO MAGIC POTION —BUT DON'T TREAT IT LIKE POISON

Not too long ago, Ball Corp. could easily have borrowed the $900 million it needed to buy Continental Can Co.'s European operations. This was no minnow looking to get pumped up on junk so it could swallow a whale. Ball, a $1.2 billion Muncie (Ind.) packaging maker, boasts healthy sales and earnings and a solid credit rating. Handling the extra debt burden would be no problem. But the banks aren't listening anymore. They turned down the loan, forcing Ball to shelve its heady transatlantic expansion plans.

Meet another company swept up in the convulsive reaction to the debt craze of the 1980s. It's a far cry from the gospel of the past decade, when dogma held that debt was a powerful growth stimulant that only chumps failed to use. Says James Grant, editor of *Grant's Interest Rate Observer* and a long-time Cassandra on the surging use of debt: "After the 1980s, an unreasonable swing in the opposite direction is to be expected." And what a swing: Now, debt is anathema. The feds are telling banks not to make loans for highly leveraged deals, and new issues of junk bonds are almost extinct.

But isn't demonizing debt going a little too far? Lately, even solid companies with high leverage are guilty by association. Look at how the market is treating TW Holdings Inc., a $1.7 billion leveraged buyout that owns restaurants such as Denny's. Since July, its 15% bonds due 2001 have slid from 101¢ on the dollar to 76¢—even though its cash flow amounts to $1.60 for every dollar it owes in interest.

DELICATE BALANCE. The truth is that Corporate America needs debt. It's like salt in the diet: Too much is harmful, but so is too little. Debt is wonderfully flexible. Modern financial techniques allow companies to float long-term bonds on just a few hours' notice, using prepackaged shelf registrations. Interest payments are tax-deductible, while dividends are not. And there's a minus to the equity financing that's back in vogue: Attracting new stock investment means diluting ownership.

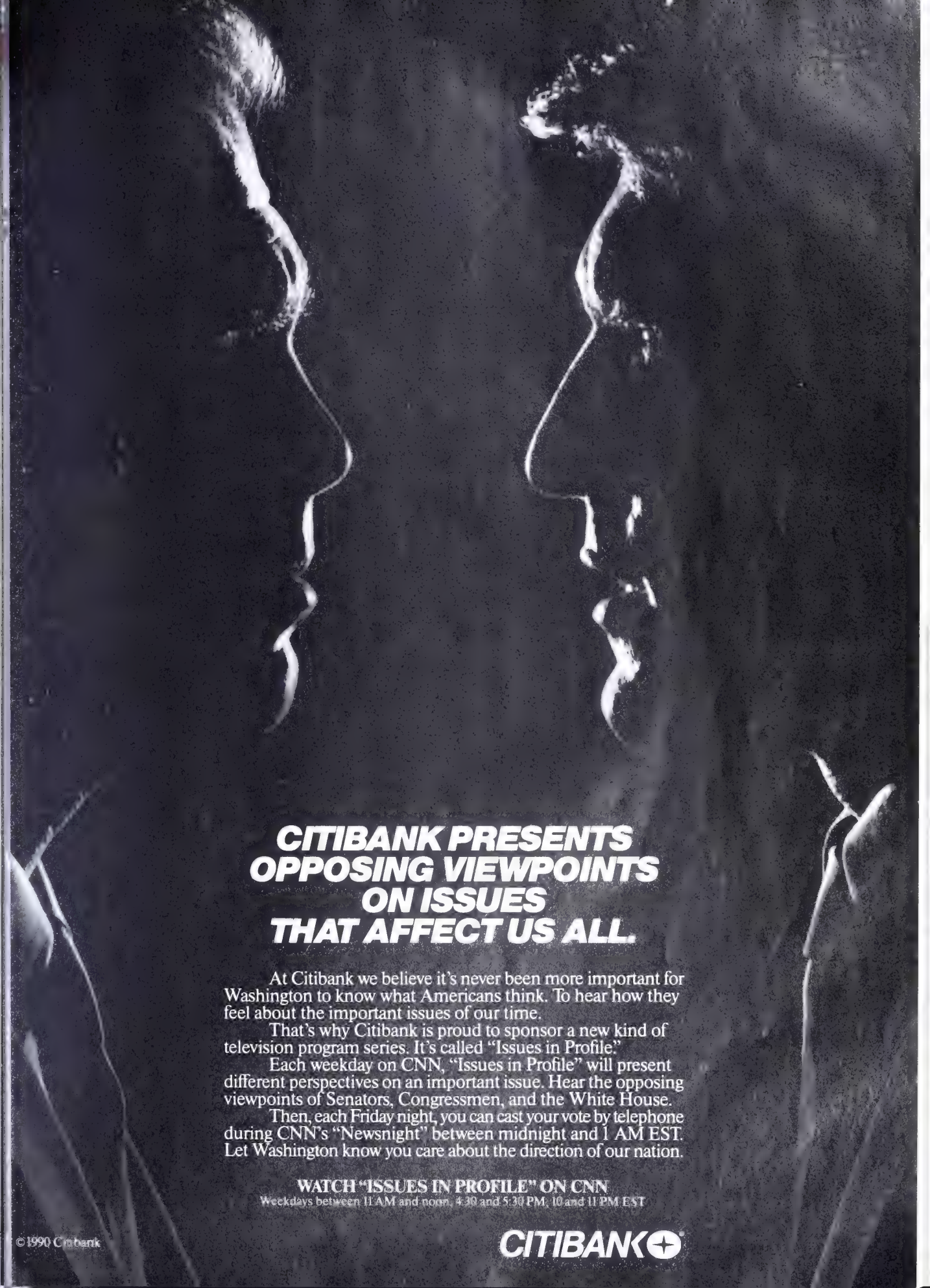
Coca-Cola Co. shows how leverage can be played like a fine instrument. In 1986, the once debt-averse Coke borrowed $2.5 billion to buy up many of its bottlers. Then it sold 51% of the new bottling unit to the public. Coke moved the acquisition debt to the balance sheet of the new unit, which in turn used the proceeds of the offering to help slash its debt. The result: Coke wound up with 49% of a $3.9 billion company—and gained marketing clout by consolidating once-independent bottlers.

Certainly, overall corporate indebtedness isn't a pretty picture—and makes you wonder how many U. S. companies will weather a recession. Since the late 1970s, corporate interest payments have doubled, to 35¢ on the average pretax dollar.

To hear debt's gleeful detractors, it's almost as if a well-deserved guillotining were at hand. Sure, there were excesses in the 1980s, a time of foolhardy ventures based on easy credit and breezy optimism. Robert Campeau's debt-fueled forays into retailing, so intrepid then, are now mired in financial woe. But it's dangerous to make such flubs the measure of all leverage.

That's because the sound of lenders' wallets snapping shut is bad for the economy. For companies struggling with debt loads, the unwillingness to roll over debt makes restructurings tough, short of bankruptcy court. Worse, the antileverage mood chokes off capital that good performers, such as Ball, need to grow.

Perhaps events will follow a course that might be called the dialectic of debt: The accepted thesis (debt is good) generates its antithesis (debt is bad), followed by a synthesis (a decent balance). Soon, please.



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WILL INSIDER-TRADING VICTIMS EVER SEE THEIR DOUGH?

Suits have prevented the SEC from disbursing settlements

It was tough enough for the Securities & Exchange Commission to nail Ivan Boesky and Mike Milken. But the agency is having an even harder time returning ill-gotten booty to investors who lost money through the misdeeds of Wall Street criminals.

More than four years after the SEC netted Dennis B. Levine, the first big fish caught in its high-profile probe of insider trading, the agency has returned only a tiny portion of the funds it has recovered—and not a nickel from any of its mega-settlements (table). That leaves the SEC sitting on more than $300 million in recovered assets. That honeypot will more than double shortly when Milken, the deposed junk-bond czar about to be sentenced in a New York court, forks over the SEC's $400 million share of a settlement worth $600 million. For now, that money is invested in Treasury bills while the SEC tries to dispense it.

Why the delay? Blame it on intragovernmental squabbles, numerous skirmishes with opportunistic lawyers, and unexpected holdups inside the SEC. Even the commission is surprised at how difficult it is playing Santa Claus to defrauded investors. "There are few acts as unrewarding as giving away money," Thomas C. Newkirk, the SEC's chief litigation counsel, says wryly.

HELD HOSTAGE. The process should be simple: The SEC appoints an administrator to craft a restitution plan, which usually gives priority to investors who sold stock on the same days that insiders bought. After receiving court approval, the administrator hires a law firm to solicit investors' claims. This saves investors from suing to recoup their money.

But everyone it seems—from options traders to the companies whose stocks were involved—has hired lawyers to challenge payout schemes that ignore their claims. Some, says the SEC, were not subtle about their tactics. "People have tried the holdup routine against us: 'Give us something or we'll hold up the whole process,'" says Newkirk. "It has become a lawyer's dream."

And a nightmare for the SEC and small investors. The Susquehanna Investment Group, for instance, challenged an SEC edict that options traders must subtract any same-day profits in an affected stock from trading losses. Tate & Lyle PLC tried a different tack. Tate claimed that illegal insider purchases of Staley Continental Inc.'s stock by Hong Kong investor Fred C. Lee and Morgan Stanley & Co. analyst Stephen Wang Jr. forced it to sweeten its 1988 offer for Staley from just $32 a share to $36.50, an $86 million increase. The courts dismissed both claims.

The SEC also found itself tripping over its own investigations. When Boesky settled with the SEC in November, 1986, the arbitrageur turned over his 23% stake in a British investment fund, Cambrian & General Securities PLC, valued at the time at about $46 million. The SEC refused to sell the interest until Boesky stopped singing, and its value plummeted in the 1987 market crash. The agency waited because of worries that it could be sued for trading on insider information provided by Boesky. By the time it finally unloaded its Cambrian shares in late 1989, the SEC had recouped only $41 million. It's unlikely investors harmed by Boesky will see any checks before next year.

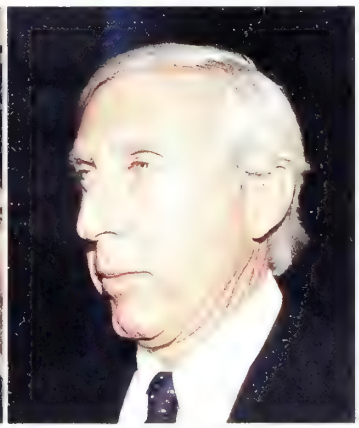
FIRST DIBS. Other government agencies have thrown a monkey wrench into the SEC's plans, too. The Internal Revenue Service wants Levine's entire $11.5 million fund, claiming that the disgraced investment banker owes $4 million in back taxes and $8 million in interest and penalties. An appeals court sided with the IRS and asked the SEC in August 1989, to draw up a new plan. The SEC hasn't done so, in hopes of negotiating a compromise with the IRS.

Investors hoping for restitution from the Drexel scandal may fare no better. When Drexel Burnham Lambert Inc. declared bankruptcy last February, it had paid only $200 million of its $350 million settlement with the SEC. But with more than 2,000 private claimants now fighting over Drexel's remains, chances are slim the SEC will recover the $150 million balance. What's more, as part of its settlement with Milken, the agency agreed not to draw up its disbursement plan for six years. As a result, well-heeled claimants who have already sued Milken for $1 billion in damages will have first dibs on the funds, probably leaving little for small investors.

The restitution program seemed like a good idea when it started. But it has foundered on the deadly combo of money and lawyers. Investors who thought the SEC could help recover their money may have been duped a second time.

By Dean Foust in Washington

LEVINE: THE IRS WANTS CONTROL



BOESKY: THE SEC TRIPPED ITSELF UP

A LONG WAIT FOR RESTITUTION

DENNIS LEVINE

Agreed to disgorge $11.5 million in June, 1986
Status Restitution stalled by dispute between SEC and IRS

IVAN BOESKY

Agreed to disgorge $50 million in November, 1986
Status SEC plan to distribute $29.6 million to investors approved in June, but still needs O.K. from second judge

STEPHEN WANG and FRED LEE

Wang agreed to disgorge $125,000 in June, 1988, and SEC has seized $19 million from Lee
Status Court approved restitution plan in October

MARTIN SIEGEL

Agreed to disgorge $4.25 million in February, 1987
Status No restitution plan yet

DATA: BW

URGE AND *VASE DE BLEUETS* IN TOKYO: DEALERS HOPE THE JAPANESE WILL BUOY AUCTIONS

THE ART MARKET IS NOT A PRETTY PICTURE

uction season is nigh in New York, and dealers are mighty tense

t was a weary Christopher J. Burge who returned to New York from Tokyo on Oct. 28. The president of hristie's USA had been on the road, long with van Gogh's *Vase de bleuets coquelicots* and other key paintings p for sale in the bellwether November uctions of Impressionist, Modern, and ntemporary art. His mission: to test uying interest. "Initially, it seemed to e quite slow," Burge reports. "But by ie second day, the second half, it eemed to be pretty much normal."

Burge, and his colleagues at rival otheby's Inc., can only hope so. In re-nt weeks, sentiment in the art world—aken by several poor auctions since st spring—has turned from gray to ack. Sotheby's stock hit a 52-week low 9% on Oct. 29, from a high of 33. The mor mill, once filled with such words "cautious" and "jittery," is now using ough going" and "carnage" describe what might hap-n. At galleries, "business is wn, absolutely," says Law-nce E. Rubin, president of ew York dealer Knoedler & .—some 30% to 35%, he ys. The slowdown is provok-g gallows humor. "We have ir Halloween sale [on], our on-to-be annual Halloween le," quips John Berggruen, a major San Francisco dealer. "We own a lot of inventory. I'm worried, sure."

The two weeks of New York auctions beginning on Nov. 5 will reveal just how worried art sellers and owners should be. If they're a fiasco, the price declines and market shrinkage so far (table) would be nothing compared with what lies ahead. That's why everyone's so interested in Japan: Contrary to conventional wisdom, the Japanese, buoyed by a rising yen and a stable economy, picked up the slack in recent months, as many recession-wary Americans dropped out and European buyers proved erratic. "Normal" Japanese sales could prevent a November debacle.

To improve their chances, the auctioneers say they have put together smaller, more selective sales and given the paintings conservative estimates. Burge says the van Gogh, for example, might have been expected last year to fetch $15 million to $20 million but instead is tagged at $12 million to $16 million. Willem de Kooning's *July*, also at Christie's, would have been estimated at $8 million to $10 million a year ago; now, it's at $5 million to $7 million. And John L. Marion, chairman of Sotheby's North America, says estimates for Henry Ford II's $50 million estate, on the block Nov. 12, are "at a level of a year and a half ago."

Unlike past seasons, the auctioneers don't have any blockbusters to hype, either—nothing like van Gogh's *Portrait of Dr. Gachet*, which fetched a record $82.5 million last May. Significantly, only one estimate tops $20 million, for a painting by John Constable up for sale in London on Nov. 14. The estimate for the work, the only one of a renowned six-piece series in private hands, is $18.9 million to $28.4 million. New York's top lot, Renoir's *La Tasse de Chocolat*, is estimated at $15 million to $18 million.

Burge and Marion exude cautious optimism. They dismiss recent poor results: At a sale of minor Impressionist works at Christie's, for example, 26% of the lots failed to find buyers, while 41% of a Sotheby's contemporary art sale met that fate. They're not a true test, the dealers say, because many paintings were accepted for sale before the auctioneers backpedaled on estimates.

MIXED SIGNALS. But others wonder if auctioneers have lowered their sights enough. Says Rubin: "If they'd knocked another 35% off everything, they would have done a good job." Kazuo Fujii, the dean of Japan's art dealers, says that "some people might not be as active, with the [Tokyo] stock market lower and a possible war coming." But Tokyo dealer Hideto Kobayashi, who purchased *Dr. Gachet* for a client last spring, says the Japanese aren't put off by money worries: He says they'll keep buying this fall if they like what they see.

Those divergent opinions say it all: Near-term, the art market will see mixed signals. "We still haven't found out where the market is. It takes six to nine months to do that," concedes Burge. Still, prices are likely to sink fastest in the areas in which they rose the steepest—contemporary art, for example. Its climb was fueled by money made in industries now in turmoil: real estate, Wall Street, and, to some extent, entertainment. Least hard hit will be areas such as jewelry, silver, and furniture, which haven't risen out of sight. There is a common thread in the analysis, though: The market has turned. The day now belongs to the buyers.

By Judith H. Dobrzynski in New York, with Karen Lowry Miller in Tokyo

HOW THE ART MARKET IS SHRINKING

COMBINED NEW YORK SALES, CHRISTIE'S AND SOTHEBY'S

ACTUAL	ESTIMATE
NOV. 6-17, 1989	NOV. 5-16, 1990
$910.9 MILLION	$484.5-$635.6 MILLION

DATA: CHRISTIE'S, SOTHEBY'S

In Business This Week

EDITED BY HARRIS COLLINGWOOD

CHRYSLER SAYS 'YES' TO THE UAW

▶ After weeks of resistance, Chrysler finally agreed to a contract with the United Auto Workers that follows the pattern set by the union at General Motors and Ford. Chrysler, which lost $214 million in the third quarter, tried to persuade the union to give it easier contract terms. The company was particularly eager to escape the UAW's pension demands because Chrysler's pension plans already are underfunded by $2.7 billion.

But union officials said they didn't want to ask their 66,000 members at the No. 3 auto maker to accept less while Chrysler is sitting on more than $4 billion in cash. Privately, UAW leaders concede that they may have to make concessions in midcontract if Chrysler's woes worsen next year.

A QUARTER GM WOULD RATHER FORGET

▶ It wasn't a happy Halloween announcement for Robert Stempel on Oct. 31. In the third quarter, Stempel's first as chairman, General Motors posted a staggering loss of $2 billion. The crucial bite: a $2.1 billion charge to cover the closing of four long-idled plants and the possible shuttering of other plants over the next three years. Without the special charge, GM would have wound up in the black, though that profit would have been down 79%, the same percentage drop as Ford's for the third quarter.

IBM'S LATEST COULD MAKE COMPAQ SWEAT

▶ IBM filled a big gap in its personal-computer line on Oct. 30, when it introduced a powerful machine that can act as the engine driving PC networks. Dubbed the PS/2 Model 95, the new computer starts at $14,145 and uses Intel's top-of-the-line processor, the 80486. The machine is aimed squarely at a similar—and higher-priced—product from Big Blue's chief PC rival, Compaq Computer.

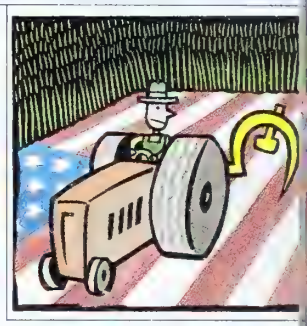
IBM's timing is good, since sales of network controllers such as the Model 95 have remained steady despite a slump in the $28 billion U. S. PC business. The product could lure customers back into computer stores, where other shiny new IBM products are waiting, including a desktop computer that uses the 80486 chip, a new version of the OS/2 operating system, and a high-end workstation.

USX LOOSENS ITS GRIP ON STEEL

▶ USX edged closer to withdrawing from the steel business it once ruled. The company's steel division, the nation's largest, is being placed in a wholly owned subsidiary, making it easier to sell, in whole or in part. In recent months, USX has been shopping its steel operations to buyers around the world, including British Steel. But any deal is likely to be delayed until current labor talks yield a new contract. The existing agreement expires on Feb. 1.

Another option is a partial sale of the steel unit in a stock offering. Management now seems to agree with investor Carl Icahn that shareholders would be better served with two separately traded companies, steel and energy. While waging an unsuccessful proxy contest last May, Icahn argued that steel has weighed down USX stock.

TODAY THE SOUTH 40, TOMORROW THE WORLD?



The Soviets may not be able to harvest their potato crop, but don't blame their tractors. Just ask American farmers, who are buying them in record numbers. Belaruse Machinery, a Wisconsin corporation owned by the Soviet Traktoroexport, reports that U. S. sales of its low-cost tractors have increased 260% over the past three years. "There is nothing wrong with [Soviet] equipment," says Wisconsin farmer Ralph Pounder, who bought two Belaruses. "It must be their operators."

The burnt-orange Belaruses are especially popular with cost-conscious American farmers in the South and East—the machines carry an average price tag of around $10,000, about half that of U. S. competitors. Now, Belaruse's Soviet masterminds are plotting their conquest of the Midwest—the really big potato in the tractor market. On balance, it seems like quite an improvement over plans for world domination.

CHARLIE KEATING'S PAL COPS A PLEA

▶ The pressure on former thrift kingpin Charles Keating increased sharply on Oct. 30, when former business ally Ernest Garcia pleaded guilty to bank fraud in U. S. District Court in Los Angeles. As part of his plea agreement, Garcia, a Tucson developer, pledged to cooperate in the feds' ongoing probe of Keating's failed Lincoln Savings & Loan Assn.

Garcia, 33, admitted to obtaining fraudulent loans totaling $30 million from Lincoln. The onetime land whiz is the first person charged with a crime in the federal investigation of the thrift. Freed on a $5,000 personal bond, Garcia faces up to five years in prison and a $250,000 fine at his sentencing, which is set for Apr. 19. Keating has already pleaded innocent to state charges of securities fraud.

GENERAL CINEMA SETS ITS SIGHTS ON NEIMAN

▶ General Cinema didn't wait long to spend some of the $500 million it made from the sale of its stake in Cadbury Schweppes earlier this month. On Oct. 30, GC offered $24 million, or $14.40 a share, to buy the 40% of Neiman-Marcus Group it didn't already own. But the day the deal was announced, Neiman's stock closed at 14%—a signal that shareholders might hold out for a better price. Well-publicized retailing woes, however, may keep General Cinema's bid from going much higher.

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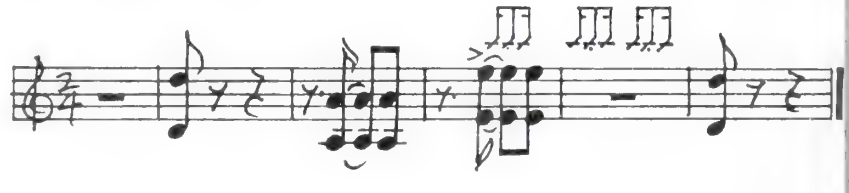
MAN: A mistake.

(MUSIC)



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Jeep Eagle 770

EDITED BY STEPHEN H. WILDSTROM

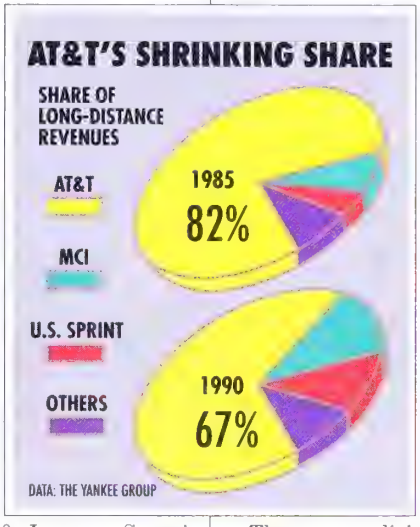
WATCHDOGS COULD LOWER THE BOOM ON PHONE-COMPANY 'SLAMMING'

When the MCI Communications Corp. telemarketer called, 81-year-old Grace Hofert didn't expect to become a foot soldier in the Washington war over phone regulation. In August, the fast-talking saleswoman called Hofert in La Grange, Ill., and asked if she would like to switch her long-distance service from AT&T to MCI. Hofert, the widow of an Illinois Bell Telephone Co. employee, said no. But when she started getting MCI bills, she realized that she had become a victim of "slamming"—the industry term for unauthorized switching of long-distance carriers. "I was so furious," she says. "An old person could have a stroke from something like this."

Such tactics may lead to the next small step away from the deregulatory fervor of the Reagan era. Consumer groups, state regulators, and American Telephone & Telegraph Co. want the Federal Communications Commission to limit telemarketing techniques, and the FCC may comply.

GETTING DIRTY. The American Association of Retired Persons, alarmed at long-distance carriers' targeting of seniors and minorities, got things started by generating hundreds of complaints to the FCC. But AT&T, which claims that it lost 90,000 customers to slamming in the past six months, is spearheading the drive. Long-distance competition, says Joel Gross, a telecommunications analyst at Donaldson, Lufkin & Jenrette Securities Corp., "is really starting to get dirty."

Any restrictions on phone pitches would be a serious blow to MCI and U. S. Sprint Communications Co., AT&T's major competitors. With all the carriers' prices and quality of service converging, consumers don't have much to choose from. Smooth telemarketing has become one of the companies' most effective sales tools. And the secret of making it work is that customers needn't make a written request to change carriers.



AT&T is hoping the government and the courts will help stem the slide in its market share (chart). It sued MCI, which the FCC alleges is the worst offender, in January, charging the No. 2 carrier with deceptive marketing practices including slamming. Although AT&T fought previous FCC efforts to require written authorization for long-distance changes, it now wants the government to make requests in writing mandatory. "This practice [of slamming] has to stop," says Merrill Tutton, AT&T's vice-president for consumer services.

'GROSSLY EXAGGERATED.' MCI denies any impropriety. It points to local phone-company mistakes and customers who change their minds after hanging up as probable causes for much of the problem. "The frequency of unauthorized switching has been grossly exaggerated by AT&T," says MCI Executive Vice-President Eugene Eidenberg. Both MCI and Sprint agree that tougher standards for phone sales and improved internal controls by all three carriers may be in order. But they want to limit the rules to disclosure requirements for telephone pitches and return calls to verify verbal change-of-service requests.

Some local phone companies aren't waiting. BellSouth and Ameritech charge long-distance companies for investigating complaints and fixing improper switches. Bell Atlantic has just raised its fees.

The FCC, realizing that boiler rooms will be boiler rooms, is expected to act on the issue soon. But it may stop well short of what AT&T wants. It's likely to encourage the Baby Bells to adopt stiff penalties to discourage slamming and may make some telemarketing standards mandatory. But the spirit of deregulation remains strong, and before agreeing to AT&T's "get it in writing" demand, the FCC will give the industry a chance to clean up its own act.

By Mark Lewyn

APITAL WRAPUP

THRIFTS

In 1988, Congress let the thrift-industry cleanup, then just getting started in earnest, run out of money. Regulators were forced to improvise, and they came up with some deals that are proving very expensive. A lack of cash is once again forcing thrift overseers to scramble. A last-minute maneuver by senior House Banking Committee member Frank Annunzio (D-Ill.) blocked House approval of new money for the Resolution Trust Corp. Annunzio is locked in a close election struggle in which his role in the S&L bailout has become the issue. Annunzio's move may force RTC to slow the pace of closing sick S&Ls and may make it increase sales of assets into a weak market to make up for the shortfall.

THE FED

The growing outspokenness of regional Federal Reserve Bank presidents is causing headaches at the Fed's Washington headquarters. At a meeting of the Conference of Presidents, Fed officials told the 12 regional chieftains to cut back on media interviews and generally adopt a lower profile. It seems members of the Fed Board of Governors are growing tired of seeing the presidents, who are generally more hawkish on inflation than the board, being quoted so often in the press.

CHILD CARE

Middle-class tax breaks for child care were a surprising survivor of this year's budget-cutting efforts. The House agreed to trim benefits for high-income parents to pay for help for the poor. House-passed legislation also phased out the child care tax credit for high-income families and restricted use of corporate "flexible-spending accounts" to pay for day care. But strong Senate objections knocked the restrictions out at the last moment. The budget package expands the earned-income tax credit for working-poor families and adds new child care grants for states and poor parents.

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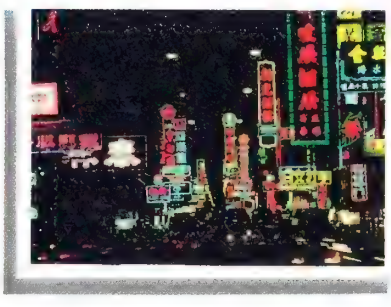

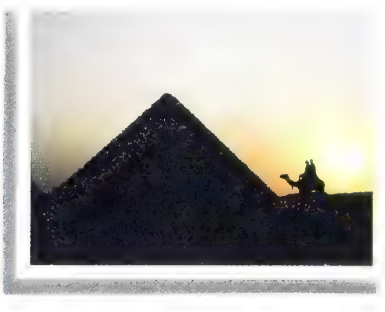

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THE NETHERLANDS

A PHILIPS LIGHTING PLANT IN HOLLAND: INDIVIDUAL FACTORIES ARE LIKELY TO COME UP WITH STALLING TACTICS TO DELAY CUTBACKS

A CHILLING NEW ERA FOR PHILIPS—AND EUROPE

Massive white-collar layoffs are coming—shattering the tradition of lifetime employment

At Philips' brick company store in the headquarters town of Eindhoven, employees fiddle with stereos and a laptop computer. But nobody's buying. Traffic is also off at the tony L'Aubergade restaurant, where $200 expense-account lunches were routine. And at Le Bolleur hostess club, where an evening of companionship runs up to $1,175 a guest, customers are scarce.

Eindhoven is waving goodbye to its days as a safe company town. The decision by Philips, Europe's largest electronics company, to eliminate up to 45,000 jobs, or about one-sixth of its worldwide work force, has shattered the last hopes for managing a gradual turnaround of the troubled $28 billion giant. Over the next 14 months, Philips is facing a bloodbath of firings and job eliminations at its 350 facilities worldwide.

As Europe becomes a single market, Philips and other old-line giants can no longer afford a huge bureaucracy and a productivity rate that lags far behind their major competitors, particularly the Japanese. "We are going to change the way we work," vows Philips Chairman Jan D. Timmer, who took the top job four months ago.

He needs to move fast. Philips' usual cash cows aren't producing. Operating profits in the lighting division fell 30% in the first nine months, to $235 million. Only consumer electronics is performing well: The division's profits spurted 37%, to $660 million. Hit by earlier restructuring costs, Philips lost $1.1 billion in the first nine months.

'We are going to change the way we work'

JAN D. TIMMER
Chairman, Philips

The latest round of cutbacks goes t the very heart of the way Europe works In return for job security, generous va cations, and retirement benefits, work ers pledged their careers to corporat employers such as Philips. While som middle managers have been quietly le go in France and Germany over the pas three years, at least the pact betwee white-collar workers and the corporatio remained solid. But now, European mar agers face the ax just as their U. S counterparts did during the 1980s. "W ain't seen anything yet," warns Roderic Gow, London mar aging director of ex ecutive recruiter Russell Reynold Associates Inc "Companies are go ing to be doin more with bette and fewer people. Some of the heav est cuts at Philip

will come in the white-collar ranks that account for one of every three of its 28,000 employees in Eindhoven.

The new age for Philips started last July, when top management said that 10,000 jobs would be eliminated and new performance rules would be pushed down the ranks. Timmer has already made 90 top managers sign contracts committing themselves to specific goals. He plans to sign up an additional 500 this month and more later. This is a dramatic change in a company where private fiefdoms were a tradition. "Philips managers have been like gods in their territories," says Sjef Stoop, an analyst at SOBE, an electronics research foundation in Eindhoven. "Now, no position is safe."

But decreeing job cuts in Europe, where Philips has 60% of its work force, doesn't mean they will take place automatically. Timmer has asked product division managers to work out plans for cuts with country managers. But the country managers are digging in their heels to save jobs. "Now that things have gotten so bad, there are lots of political fights," says a Philips computer executive. In Germany, which accounts for 10% of Philips employment and earns 10% of revenue, managers say they will conduct studies to measure productivity against comparable Philips plants in other countries. They will fight to minimize the cuts.

SIEGE OF STATES? Some factories may try to negotiate delays. Just a year ago, Philips wanted to eliminate 800 jobs at its TV components plant in Tilburg, 30 miles east of Eindhoven. The plant got a two-year reprieve while it tried to come up with a new marketable product. It's still looking. Insiders say Timmer will no longer tolerate such schemes.

Major cutbacks may come overseas, including the U. S., where Philips has 40,000 employees. It's generally easier and cheaper to fire people in the U. S. At home, Philips has to pay a fired employee's full salary for 15 months. And the company has been giving middle managers up to three years' pay. By one estimate, the average cost of such layoffs is $59,000. Wherever the cuts come, the tab promises to be huge. The first round of 10,000 layoffs cost Philips $700 million.

Some experts doubt that Timmer's big cuts will change Philips much. The company has always focused more on technology than on selling. "There is no guarantee that the survivors will operate any differently," says a Philips engineer. Philips will save $1.8 billion in wages next year. But for Timmer, that may be only the first step toward getting Philips back on the growth track.

By Jonathan Kapstein in Eindhoven, with Jonathan Levine in Paris and Gail E. Schares in Bonn

JAPAN

YOU CAN'T GET SUSHI AT THE LOCAL 7-ELEVEN—YET

A $430 million deal could put the U.S. stores in Japanese hands

In a classic case of role reversal, the Japanese student is now instructing the American teacher. Seventeen years ago, Tokyo retailer Ito-Yokado Co. purchased rights from a booming Southland Corp. to franchise 7-Eleven convenience stores in Japan. Now, the Japanese are hugely successful while their U. S. mentor wallows in debt. As part of a "prepackaged" bankruptcy filed in late October by Southland, Ito-Yokado agreed to plunk down $430 million for 70% of the Dallas-based company. If the deal goes through, the Japanese expect to turn the often tawdry American 7-Elevens into spiffy money-makers.

Ito-Yokado is moving into the U. S. while other Japanese are pulling out (page 46). But if Ito-Yokado can't do the trick, nobody can. Japan's most profitable retailer has the money, management techniques, and vision to infuse 7-Eleven with new life. As franchisee of 4,050 7-Elevens in Japan and owner of 57 7-Elevens in Hawaii from a deal last year, Ito-Yokado is intimately acquainted with the highly competitive industry.

A JAPANESE 7-ELEVEN STORE: HIGH STANDARDS

NO CASH. American 7-Elevens need all the help they can get. While store operations turn a profit, their crisis stems largely from the $4.9 billion debt burden Southland's founding Thompson family assumed in 1987 to take the company private. Growing competition from 24-hour supermarkets and gas-station stores left the Thompsons without enough cash to service the huge debt. Last year alone, Southland lost $1.3 billion on sales of $8.3 billion.

In contrast, the practically debt-free 7-Eleven Japan raked in almost half of Ito-Yokado's $13.3 billion in sales last year. The company's overall operating margins of 9.5% were three times the average of its five main rivals. "There could be real improvements if they bring Southland up to their standards," says Carol I. Palmer, an analyst at Duff & Phelps Inc. in Chicago.

Those are very high standards. President Masatoshi Ito, whose family owns 16% of Ito-Yokado, is known to check for dust during inspections. In copious manuals, employees are taught everything from how to greet customers to how to persuade them to have their film developed at 7-Eleven. While U. S. stores offer beer and food staples, the Japanese sell sushi and dumplings and also allow shoppers to pay household bills. A key difference is the computerized inventory-control system used in Japan that allows managers to track sales of goods and place orders. Without such computers, the 7-Elevens in Hawaii now carry four times the inventory of the Japanese stores but fail to generate any more sales, says Michael Allen, an analyst at Barclays de Zoete Wedd Securities (Japan) Ltd.

BIG PLANS. With few options, Southland chose to enter bankruptcy court with a prepackaged plan—one that had been approved by a majority of its creditors. There's no guarantee the plan will pass muster in court, but most think it will. Masaaki Kamata, senior managing director of 7-Eleven Japan Co., predicted in late October that the U. S. company could even be in the black within a year.

Ito-Yokado is betting big that its formula can work in America. The company could spend up to $203 million to upgrade the 6,800 American 7-Elevens and link them in a computer network. The Japanese intend to streamline management, boost advertising, and sell franchises for many of the 53% of stores still operated by Southland. "Most of the franchisees welcome the buyout," says Ted Jackson, vice-president of 7-Eleven's 480-member franchisee organization in Southern California. Whether they're up to the rigors of Japanese management is another question.

By Robert Neff in Tokyo, with Kimberly Blanton in Dallas

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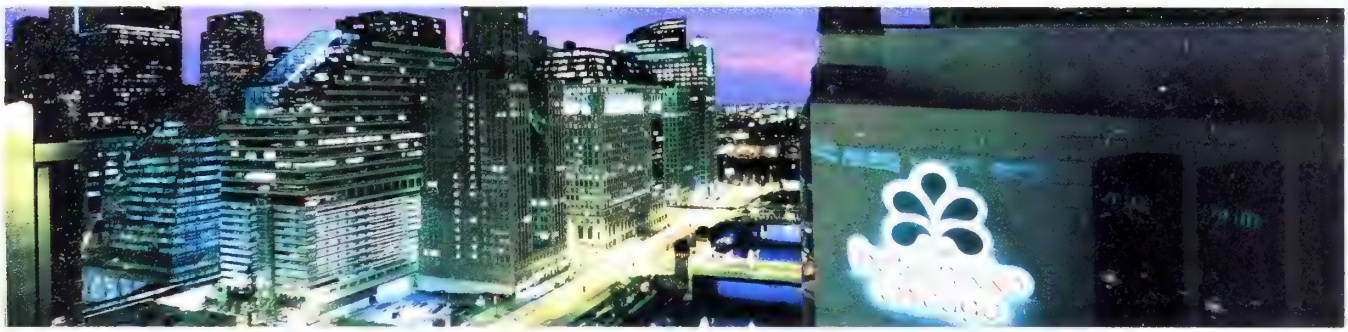

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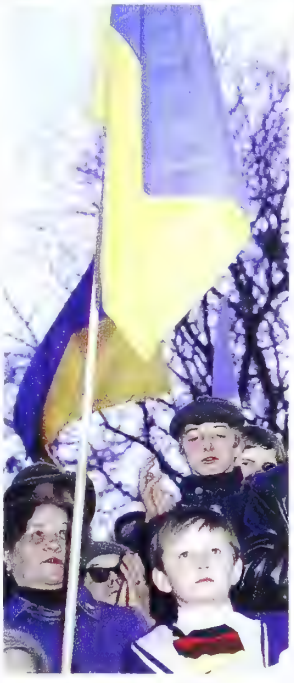
EDITED BY JOHN PEARSON

LITHUANIA IS ONE THING —BUT A BREAKAWAY UKRAINE IS ANOTHER

What is the real value of the ruble? In Kiev, the answer is close to zero. On Nov. 1, the Ukrainian government planned to start paying workers 70% of their wages in rationed food and consumer products instead of in Soviet paper currency. The decision by the independent Ukrainian Republic is a first step toward complete financial autonomy from Moscow and is a decisive *nyet* to President Mikhail Gorbachev's plan for yet another round of Kremlin-led economic reforms—no matter how sweeping. Soon, the Ukrainian Parliament will begin debating how to establish an independent banking system and launch a paper money of its own to replace the ruble.

Daily, in such large and small decisions, politicians across the Soviet Union are choosing simply to tune out Gorbachev. On Oct. 28, voters in the Georgian Republic elected a pro-independence majority to their Parliament. Leaders are calling for an independent state by 1993, with a capitalist economy that would keep some links with the Soviet Union. In the Baltics, officials are drawing up the terms on which they intend to bargain with Moscow for their secession.



WAVING THE FLAG FOR UKRAINIAN INDEPENDENCE

SLAVIC HEARTLAND. But it is in the Ukraine—the Soviet Union's second-largest republic—that the powerful nationalist movement poses the biggest threat to Soviet cohesion. Politically, secession by the Ukraine would be especially damaging because, along with Russia and Byelorussia, it forms part of the Soviet Union's Slavic heartland. "The idea that the Ukraine could break away would be very difficult for Moscow to swallow," says a Western diplomat in Moscow. "Kiev to the Russians is a Russian city."

Not to the Ukrainians, however. Rukh, the newly formed independence movement, claims the backing of half the republic's 52 million people, and its supporters already hold 115 of 434 seats in the Ukrainian Parliament. Striking nationalist students last month won legislators' agreement to a referendum next spring that could lead to new multiparty elections. If Rukh and allies gain control of Parliament, they are likely to declare Ukrainian independence. "I'm sure [independence] will happen in 1992," says Alexander Savchenko, a senior Rukh leader.

Rukh appears to have drawn a lesson from Lithuania's failed attempt at an abrupt breakaway, however. Instead of outright secession, Rukh aims at a loose Soviet confederation of sovereign republics that would leave the Moscow government with authority over nuclear defense, a space program, ecology—and little else, according to Volodymyr Pylypchuk, chairman of the Parliament's economic reform commission.

Although the Russian Republic under President Boris N. Yeltsin is also asserting broad sovereignty, the Ukraine is moving faster to shape its own foreign policy—with the advantage of having its own seat at the U. N., as does Byelorussia. Last month, Ukrainian Foreign Minister Anatoli M. Zlenko paid an official visit to Hungary, and Ambassador to the U. N. Guennadi I. Oudovenko says the republic is exploring the establishment of diplomatic ties with other countries. The U. S. backs Gorbachev strongly, but the State Dept. also expects to reopen a consulate in Kiev—part of a U. S. effort to widen links with Soviet republics and nationalist groups.

To head off a breakup of the Soviet Union, Gorbachev last spring offered to negotiate a new "treaty of the union" to give the republics more power. But the accelerating independence drive by the Ukraine and other republics seems likely to outdistance the slow-moving treaty talks—and leave scant authority for Gorbachev and his successors to wield.

By Rose Brady in Kiev, with Bill Javetski in Washington

GLOBAL WRAPUP

EUROPE

After much hesitation, Chancellor Helmut Kohl has overruled his central bank and made good on a promise to keep Europe moving toward a common central bank and currency. Completing the reforms will take until the end of the decade, if not longer. But the direction is now set. "Kohl has settled the question," says a French Foreign Ministry official. The EC has agreed to Kohl's proposal to start setting up a European central bank by Jan. 1, 1994, in a second phase of monetary union. A common currency would probably not be adopted until the year 2000.

Eurocrats thought Kohl would be afraid to overrule Germany's powerful central bankers before the country's Dec. 2 elections. The Bundesbank board said that wide disparities among European Community members in inflation rates and budget deficits needed to be narrowed before government could try monetary reform.

But reformers said the step toward monetary union may itself help close such gaps. German and French inflation rates, for example, were once far apart but have been pushed together by the creation of the European Monetary System in 1979. The EC hopes that will now happen with Italy and Spain, too.

ISRAEL

Arab-Israeli tensions are getting even worse as a result of Israeli employers' layoffs of Palestinians who commute to jobs in Israel. The firings are a reaction to Arab knife attacks against Israelis, following the recent shooting of 21 Palestinians by Israeli police. Of the 110,000 Palestinians employed in Israel, many are being replaced by Soviet immigrants and other Israelis—in textile plants, farming, and service jobs. But Palestinian construction workers, about half of the total, are likely to keep their jobs: They are needed, ironically, to build housing for Soviet immigrants.

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RETAILING

AT SEARS, THE MORE THINGS CHANGE . . .

CEO Brennan is transforming the retailer—but it isn't paying off

UP FROM HEADLESS MANNEQUINS: JUST 23 STORES HAVE SO FAR ADDED THIS "POWER FORMAT"

Edward A. Brennan is running out of time. When the chief executive of Sears, Roebuck & Co. took personal control of its limping retail operation in late July, quick results were needed. And many figured that if anybody could make the tough choices needed to lift sales at Sears' 850 stores, it was the 56-year-old Brennan. After all, he rose to the top after turning around the merchandising division a decade ago.

So far, though, the Brennan offensive has amounted to little more than a shot across the bow. He has accelerated Sears' two-year-old strategy to switch to brand-name products and laid off 213 employees in the catalog division. But the brand strategy hasn't been an antidote for lagging sales, as Brennan had hoped. And the layoffs haven't been deep enough to deflate the company's bloated costs. Says one former Sears executive: "They expected to hit a home run but only managed a single."

Revenue for Sears' retail business was flat for the first nine months of 1990, at $22 billion. But net income plunged 42%, to $161 million. What's more, practically all of Sears' retail earnings came from interest on credit-card sales—not from merchandise sold to customers. The stores actually posted a loss of $119 million during the first nine months, compared with earnings of $29 million for the same period in 1989. Prospects aren't getting any rosier: Wayne Hood, a retail analyst at Prudential-Bache Securities Inc., says a poor Christmas sales season could drive Sears' fourth-quarter retail earnings 60% below last year's $369 million.

Now, investors are losing patience. Sears stock has slid 40% since Brennan became CEO in 1986. In just the three months he has been in control of merchandising, Wall Street has forced the price down 20%. It recently closed below 24. Says another former Sears executive: "If Brennan doesn't get costs down, he'll be gone in a year."

One board member, Donald H. Rumsfeld, former Defense Secretary in the Ford Administration, denies that Brennan has been given any deadline. Brennan himself declined through a spokesman to be interviewed for this article. His spokesman, Gerald Buldak, says: "The only deadline Mr. Brennan is operating under is self-imposed and his own." Still, the pressure on him must be mounting. Retail analysts have been speculating that Sears will lay off thousands of employees after Christmas. That would stem at least some of its relentlessly rising costs.

BOUTIQUES. Brennan's original strategy, introduced in 1988, was to lure customers and revive sagging profits by aggressively selling brand-name products. Sears had traditionally eschewed brand names other than its own. To spice up the plain-vanilla image of his stores, he divided them into seven "power formats": women's apparel, appliances and electronics, home improvement, children's clothes, automotive, men's fashions, and furniture. Each has its own distinct selling space and style: Appliances and electronics, for example, are sold in a boutique called Brand Central which looks like a Circuit City outlet.

The strategy certainly has revolutionized the way Sears does business. Brennan has made each power format a separate business—responsible for its own profits and losses. This has shifted the authority over pricing and product mix from individual store managers to each category manager. Sears executives say this has helped the retailer develop more coherent national sales campaigns. And it has standardized the mix of products in all the stores: "Now, the customer knows what to expect in our stores," says Forrest Haselton, vice-president for automotive products.

The push for more brand names has also forced Sears to begin shedding another costly habit: the large amount of floor space it devotes to inventory. Unlike most retailers, which use 80% of floor space to display items for sale, Sears has historically used half to store inventory. The influx of brand-name products has forced Sears to free as much as 50% more space to display

LESS THAN THE SUM OF ITS PARTS

Some analysts estimate that the nonretail components of Sears are worth more by themselves than the entire company is. Here are estimated market values:

	Total value Billions of dollars	Dollars per share
SEARS FINANCIAL*	$10.2	$30
SEARS CREDIT CARD**	3.8	11
SEARS REAL ESTATE***	3.8	11
TOTAL MARKET VALUE (excluding retail)	**$17.8**	**$52**
SEARS ROEBUCK (actual 10/30/90)	**$8.2**	**$23 7/8**

*Dean Witter, Allstate Insurance, Discover Card
**Charge-card division ***Stores and other physical plant
DATA: UBS SECURITIES INC.

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them. Many Sears stores now use up to 70% of floor space to sell merchandise, and excess inventory is kept off premises in warehouses.

But the radical face-lift has been expensive: For Brand Central alone, Sears hired 2,300 salespeople and spent $30 million training them. Sears' total costs have risen $900 million this year. Arch-rival Montgomery Ward & Co. switched to a brand-name strategy in 1985. But Bernard F. Brennan, Edward's younger brother and CEO of Montgomery Ward, slashed costs before making the change-over. Sears' chronic high costs have hindered it from matching the prices of such rivals as Montgomery Ward and Wal-Mart Stores.

Moreover, the power formats haven't lifted sales much, partly because their zippy new look hasn't turned up yet in many stores. Women's apparel boutiques, for example, are now in only 23 locations. With Brennan riding herd on the retail division, Sears says it will have the boutiques in as many as 100 stores next year.

Brennan's new urgency is making a difference. In some stores, where customers had once drifted through rows of drab displays and headless mannequins, clothing departments now throb with dazzling videos and pulsating music. And while overall sales are flat, managers of some jazzed-up departments report robust growth. Marvin Stern, vice-president of Brand Central, says his units have had double-digit sales growth in the last two years.

TUNED AND TRIMMED. Niftier merchandise is also heating up sales in some categories: Sears now sends its buyers to Paris and Milan to scout out trendy women's fashions. So next spring, Sears will feature lots of black-and-white combinations. It's also trying to woo female shoppers: A $25 million ad campaign makes jocular reference to Sears' once-dowdy reputation with the tagline, "You Gotta Be Puttin' Me On." The company says the ads are working. While it wouldn't provide numbers, Lee Hogan Cass, national fashion merchandise director, says dress sales and profits are up "in the double digits." Adds Cass: "I have lots of hope."

Even so, retail analysts say better sales may not be enough to revive Sears giant retail operation. They figure Brennan must wring $1.5 billion out of the company's unwieldy cost structure to become competitive. Says a senior executive at a rival chain: "The reforms won't work unless the basic organization is tuned, trimmed, and driven."

One area where Sears is chugging along nicely is financial services (box). This has even prompted some impatient analysts and shareholders to suggest that Sears might be better off getting out of the retail business and concentrating on its more lucrative ventures in brokerage, insurance, and real estate.

Selling off its retail business might seem apostasy for a company that pioneered the suburban department store. And Sears, to be sure, denies any plans to put its stores on the block. But as consumer spending dries up, the heat on Brennan will only intensify. If he can't tune, trim, and drive his stores quickly enough, ditching them may not be that farfetched.

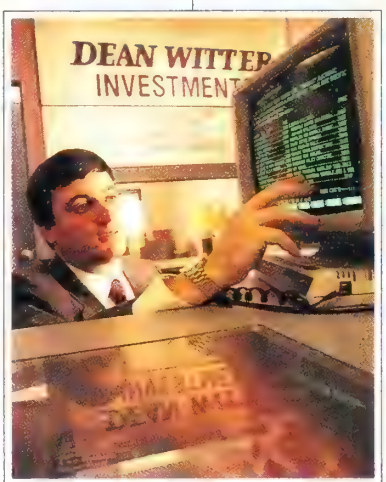
By Kevin Kelly in Chicago

SEARS IS DOING BETTER ON WALL STREET THAN ON MAIN STREET

When Sears, Roebuck & Co. got into the financial-services business in 1981, industry wags said it would be selling everything "from socks to stocks." These days, Sears must be relieved it branched out: It's making a lot more money on stocks than socks. Led by brokerage house Dean Witter, the financial-services arm is thriving. While the retail division earned just $647 million on revenues of $32 billion last year, financial services pulled down $1.1 billion on revenues of $22 billion.

Sears' foray into Wall Street has prospered from a combination of tight cost controls and marketing savvy. At Dean Witter, for example, Chief Executive Philip J. Purcell spent much of the 1980s building a brokerage that caters to the individual investor. Its TV ads show grainy images of Dean Witter's eponymous founder reminding his troops: "We build our business one investor at a time." Its competitors, meanwhile, were paying to lure dealmakers and scrambling for mergers-and-acquisitions business. Now, Purcell's strategy is looking prophetic. While most brokerage firms posted earnings declines for the first nine months of this year, Dean Witter's net income jumped 49%, to $176 million.

Allstate Insurance has also succeeded by avoiding the costly missteps of its competitors. Hurricane Hugo and the San Francisco earthquake prompted a flurry of claims that have cut its earnings for the past two years. But Allstate sidestepped the larger problems afflicting many companies that made chancy investments in real estate and junk bonds. Stuart Feldstein, an analyst at SMR Research Corp. in Budd Lake, N. J., figures that if its catastrophic claims had been at normal levels, Allstate could have earned $1 billion this year, an 18% jump from 1989. As it is, most analysts predict Allstate will still make $690 million, down from $815 million last year.



DEAN WITTER'S PROFITS ROSE 49% IN THE FIRST NINE MONTHS OF 1990

Sears hasn't prospered just by sticking to the straight and narrow: One of its most daring experiments, the Discover card, is also paying off handsomely. Industry experts were chary when the company introduced Discover in 1986 to compete with Visa and MasterCard. But Sears won cardholders by not charging a fee and by offering rebates tied to usage. Today, 33 million Americans carry the card. It is accepted at 1.1 million stores, which makes it competitive with other big cards. Peter J. Siris, a retail analyst with UBS Securities Inc., expects Discover to earn $115 million this year, up 44% from 1989.

Financial services have been so successful that several analysts figure that Sears would be a blue-chip stock if it were purely a financial-services company (table, page 66). Siris believes Sears Financial would be worth $30 a share as a separate entity. That's 20% more than the current stock price of the entire company.

For Sears Chief Executive Edward A. Brennan, the big challenge now is to pass on to his sock-selling retailers the secrets of their stock-selling colleagues.

By Kevin Kelly in Chicago

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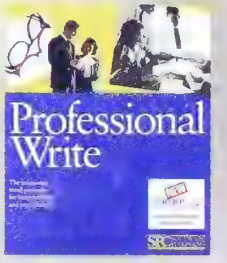

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BERTELSMANN: WHEN BEING A GIANT ISN'T ENOUGH

It already dwarfs all other media companies. Now it wants to be a household word all over the world

Mark Wössner's wood-paneled office, overlooking Westphalian fields in Gütersloh, Germany, is far from the glitz of Hollywood or the bustle of Manhattan. But from this corporate backwater—population 82,000—the steely-eyed Wössner runs Bertelsmann, the world's biggest and richest media company. And if all goes according to schedule, his burgeoning empire soon will become an international household word.

As Wössner surveys his big-city rivals in the global media race, he knows Bertelsmann has a solid financial lead. Time Warner Inc., the second-largest media company, has $10.8 billion in debt from its merger last year. Rupert Murdoch's News Corp. is scrambling to fund $2.2 billion of short-term debt. Britain's Robert Maxwell is dumping assets to meet a $415 million debt payment. With total debt of some $390 million and more than $2 billion in cash and credit, Wössner is in the industry's catbird seat, taking calls from investment bankers peddling choice prospects around the globe.

BORDER-HOPPING. After being a wallflower, Bertelsmann is getting ready to lead the dance. While Murdoch and Time Warner's Steve Ross cut big deals with hefty price tags in the late 1980s, the stolid German company, with all its riches, remained on the sidelines. Some media analysts charged that Wössner lacked the vision of his competitors, for all their problems. Even Bertelsmann's bid for global prominence by buying RCA Records U. S. in 1986 has paled compared with flashier Japanese buys. Its purchase of publisher Doubleday Inc. the same year, for $475 million, was a nightmare that ran up about $6 million in losses last year. Now, the wealthy Bertelsmann is scheming to snap up top media properties as a recession hits.

Over the next three years, Wössner will spend at least $4 billion to extend the company's reach all across Europe and America. European deregulation allows a media giant such as Bertelsmann to cross borders with ease. Wössner is building up every facet of the business, from Europewide magazines to pay TV. Closer to home, Bertelsmann is spending a breathtaking $650 million to ensure that it dominates in information-hungry eastern Germany. And investment bankers say that Wössner's minions are all over Tinseltown, talking about record and movie production joint ventures with everyone from Walt Disney Co. to Paramount Pictures Corp.

WOSSNER: A SHARP EYE FOR BARGAINS AND A LONG-TERM VIEW

GLOBAL MEDIA HEAVIES

	Sales Billions of dollars*
BERTELSMANN GERMANY	$7.9
TIME WARNER U.S.	7.6
NEWS CORP. AUSTRALIA	6.4
FININVEST ITALY	5.5**
FUJISANKEI JAPAN	5.5**

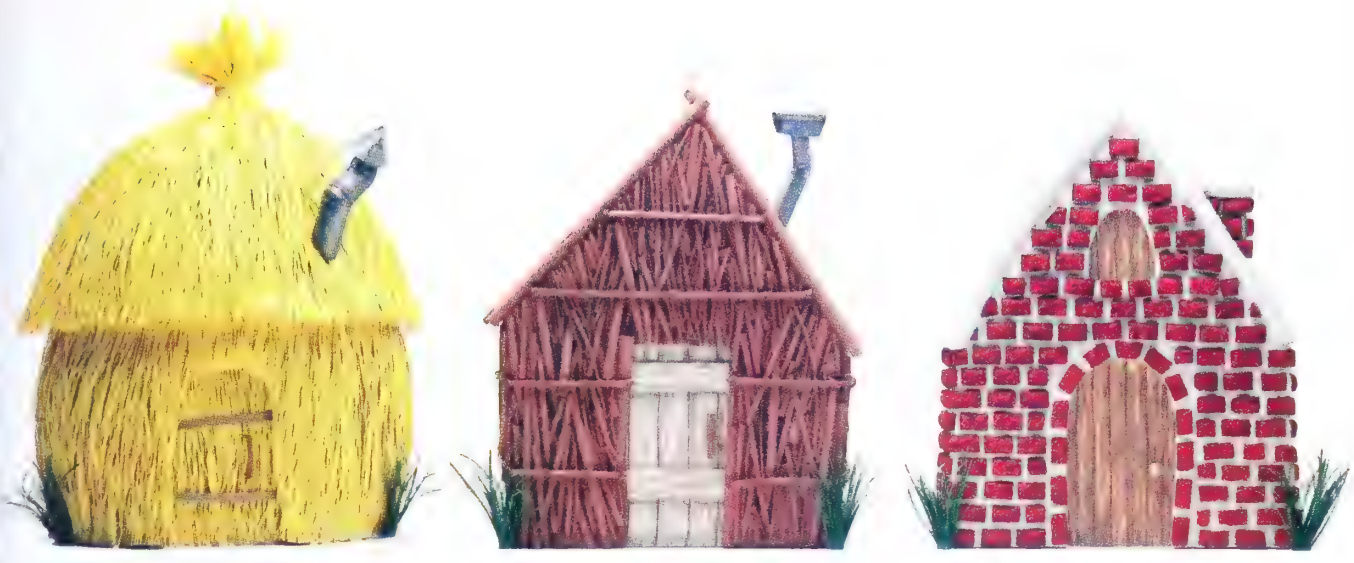
*For 1989 **Estimate

DATA LAZARD FRERES & CO

But making a name for itself in the U. S. market hasn't been easy. After buying Doubleday, Bertelsmann found it difficult to deal with the independent New York publishing crowd. The Germans were particularly upset when they learned that Doubleday's book list had ballooned, pushing up costs. "There were problems with Doubleday," admits Michael Dornemann, Bertelsmann's top U. S. executive. "We may have expanded too fast." In January, the company tapped Stephen Rubin, publisher and editor-in-chief of its profitable Bantam unit, as Doubleday's boss. He has streamlined the list and signed long-term deals with such popular authors as John Jakes. And recently, Bertelsmann named Paul D. Neuthaler, whose most recent experience was in scientific and technical publishing, as CEO of the U. S. book group. It's all a strain on the 52-year-old Wössner, who has spent more time this year haggling over management issues in New York than he did working at his idyllic headquarters in Gütersloh.

CULTURE CLASH. Dornemann, a Wössner confidant, says the U. S. book operations continue to make money. Now, he's scouting various trade magazines and media groups to add to the company's 55 magazines worldwide, including *Parents* magazine and Germany's gossipy *Der Stern*. "Anytime something comes up that is reasonably priced, we're on the acquisitions front," Dornemann says.

As for its U. S. music business, Bertelsmann management has also suffered from a revolving door. Company executives thought they scored a coup in buying RCA Records for $333 million. Then the culture clash began. Some insiders say the cautious, cost-conscious German management balked at CEO Elliot Goldman's plans to throw money at promising talent to liven up the tired label. Dornemann claims it was never a question of money: "We differed on who to hire, who to fire," he says. Goldman



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left after he and his lieutenants had begun to jump-start the artist roster, first by dumping such faded stars as Barry Manilow and John Denver.

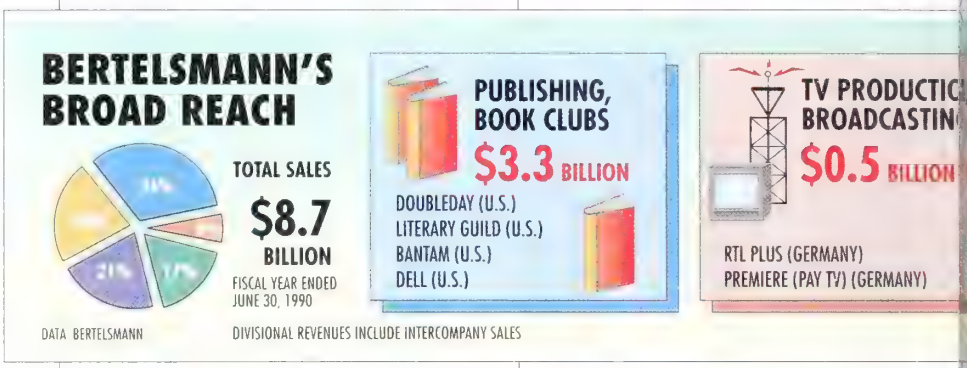
In the meantime, RCA President Bob Buziak made inroads: He was reviving the jazz catalog and cultivating new rock talent, but Dornemann felt the appeal was too narrow. Insiders say Buziak also differed with Dornemann over distribution and marketing decisions, and he ended up leaving in July. Now, Joe Galante, who headed RCA's Nashville operation, is in charge. For all the management turmoil, Dornemann says group profits are "well above targets." The U.S. music unit made pretax profits of $100 million on $2 billion in sales last year. Still, industry executives are unimpressed. The RCA label hasn't enjoyed a major hit album since *Dirty Dancing*, back in 1987. And while Bertelsmann does have a jewel in its tiny Arista label—with such hot stars as Kenny G and Lisa Stansfield—the group has no pop albums currently in *Billboard*'s Top 50.

Bertelsmann had lots of chances to beef up its 10% U.S. market share through acquisition. But Dornemann, loath to overpay, let others pick off pop label Chrysalis, A&M in Los Angeles, and the sizzling Geffen label. Now, there is little left to buy. At this point, Bertelsmann's U.S. strategy is to lure new talent and start snazzy new record labels. It's also scrambling for distribution deals. Industry sources say that Dornemann is about to ink an agreement to distribute MCA records outside the U.S.

Despite the problems, Bertelsmann claims it's taking the long-term view. It can afford to. Under an unusual arrangement, the Bertelsmann Foundation controls 68.8% of the stock, making the company immune to predators. "Being No. 1 in the world isn't important to us," says Wössner. "But being first or second in each of our markets is."

That only shows how far Bertelsmann has come. What started modestly as a publisher of bibles in 1835 suddenly blossomed after World War II under Reinhard Mohn, a prisoner of war returning from the United States. Mohn, a fifth-generation member of the founding family, extended Bertelsmann's reach across Europe. Wössner still reports to the feisty Mohn, now 69, who controls all of the company's voting shares.

Bertelsmann's exacting management pays off. Division heads must get annual sales increases of as much as 15%—and this year, Wössner wants return on in-



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vestment to rise to 15% as well, from 13% last year. The result: Bertelsmann's net profits grew 27%, to $333 million on $8.7 billion in sales, in fiscal 1990, ended in June. "They are very capable, very competent, very large, and very focused. They are the best in Europe," says Carlo De Benedetti, a key shareholder of Mondadori, Italy's biggest publishing house.

With Europe's borders ready to open in 1992, Bertelsmann already is far ahead of the competition. It pioneered the concept of a Europewide magazine a decade ago, an idea tailor-made for the coming single market. *Prima*, the company's successful women's magazine, also sells in France, Britain, Spain, and Italy and appeals to a broad segment of women across Europe. The magazine is customized to local tastes, but it attracts big advertisers who want to cover all of Europe. The company is rolling out the same formula for dozens of other titles. It also has a lock on European book and record clubs, with 19 million members.

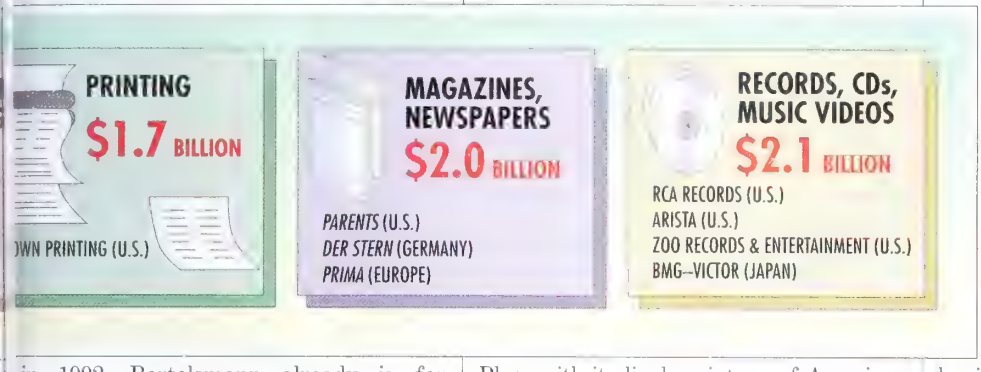
Now, Wössner is ready to gamble in Europe's high-stakes private television business. Bertelsmann already pioneered private TV by introducing Germany's RTL Plus, with its lively mixture of American soap operas, investigative magazine shows, and news flashes. It has become Germany's most popular station.

AFTER THE FALL. As deregulation opens up the airwaves to more advertising, TV has become a gold mine. Bertelsmann is gearing up to spend $260 million on a German pay-TV station, called Première, featuring Hollywood films such as *Batman* and *The War of the Roses* and TV shows such as *The Simpsons*. And the company is taking a commanding position in sports programming. Bertelsmann stunned state-run public television stations when it outbid them last year for rights to broadcast German soccer matches and snatched the Continental rights for Wimbledon tennis.

After the Berlin Wall came down, Bertelsmann moved right into East Germany. It bought the Berliner Verlag newspaper and magazine group for an estimated $160 million in a 50-50 partnership, founded three daily newspapers, and started a book club that already has 400,000 members.

For Wössner, as with most German executives, the lure of Eastern Europe is irresistible. And if any company can make it there, it's Bertelsmann. But the unfinished business is back in the U. S. As Wössner piles up German marks and triumphs on the Continent, he will be looking over his shoulder at the problems in Manhattan and Tinseltown.

By John Templeman in Gütersloh and Susan Duffy in New York, with Joyce Barnathan in New York and Ronald Grover in Los Angeles



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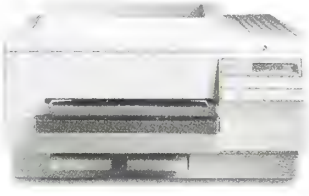

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A WHOLE NEW WAY OF LOOKING AT THE WORLD

Computer visualization lets scientists quickly grasp complex calculations in picture form

Astronomers have long speculated on the shape of the universe. But none even imagined what Margaret Geller has seen. Based on data on the known positions of galaxies, the Harvard University professor of astronomy has devised a 3-D, computerized map. Using it to "fly" through part of the universe, she uncovered what others had missed: Galaxies cluster mysteriously along the edges of invisible bubbles.

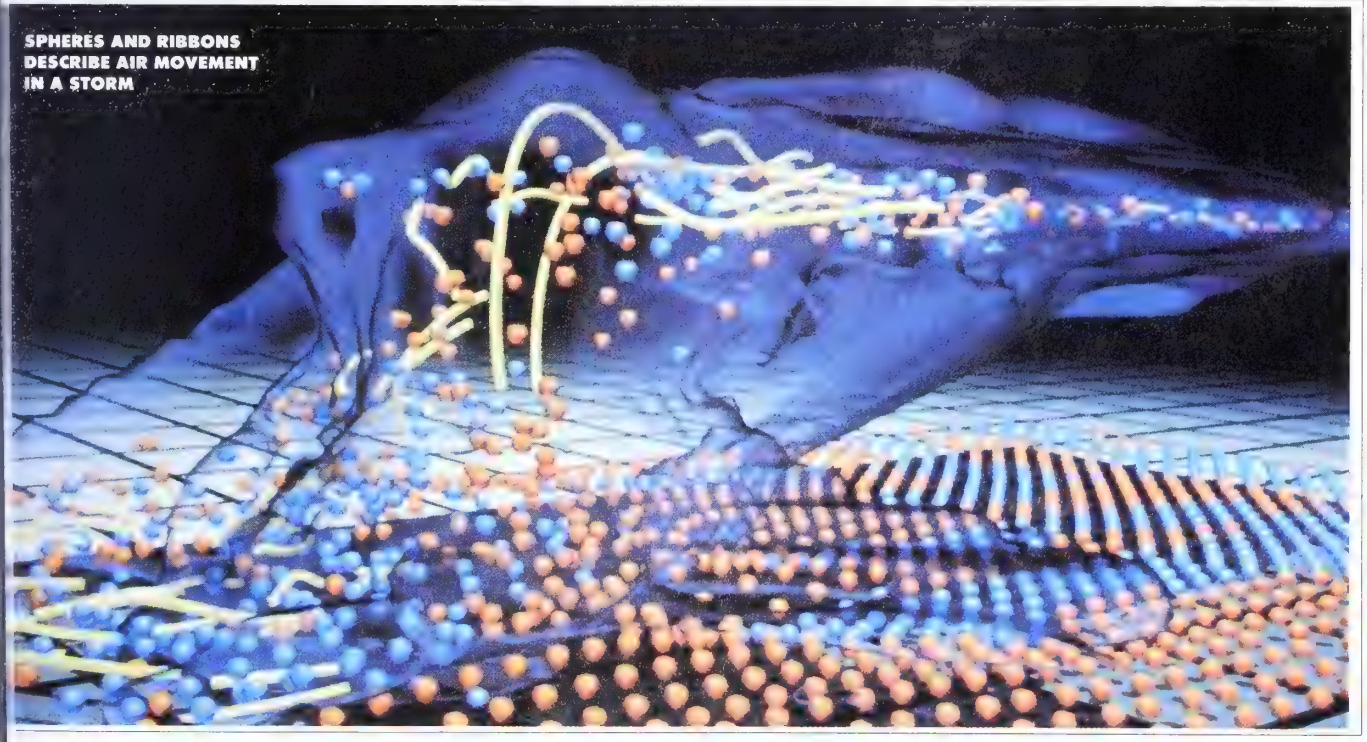
Geller's discovery was more than a *Star Trek* flight of fancy. In everything from astronomy to genetics, scientists are spurning approaches that rely on sorting through vast amounts of purely numerical data to solve problems. Instead, they're converting the numbers into breathtaking computer images that convey color, motion, and—in still-rare cases—sound. "You could not see the pattern in a sheet of numbers," says Geller of her discovery. Now, she is extending her map to encompass 15,000 known galaxies.

Called scientific visualization, the technique evolved with the rise of supercomputers. In the early 1980s, engineers began using sophisticated computer graphics for such problems as aircraft design. To cope with the billions of numbers needed to design aircraft on a supercomputer, they transformed data into images. For example, they equated shades of color with the stress on an aircraft's wing. More recently, special graphics-processing chips and software have brought the same stunning images to inexpensive workstations.

OVERLOAD. Just this year, Spyglass Inc., a spin-off from the National Center for Supercomputing Applications (NCSA) in Champaign, Ill., announced an $1,195 visualization package for Apple's Macintosh II computers. As the technology spreads, visualization may accelerate scientific discovery by narrowing the gap between theory and reality. At NEC Corp.'s Exploratory Research Lab in Tsukuba, Japan, visualization is viewed as a tool that may eliminate the need for some lab experiments. "It's almost like creating a new type of microscope," says NEC researcher Toshikazu Takada.

Visualization is partly a response to scientific overload. With superprecise instruments to collect data and high-speed computers to massage it, researchers can, with a few strokes on a keyboard, generate billions more numbers than they could possibly analyze using conventional techniques. Everything from the noonday surface temperature on Venus to the pressure at the bottom of the sea is tracked and measured routinely. And humans are best able to assimilate the torrents of data in picture form: "The brain is set up to recognize patterns," says Bruce R. Land, senior manager of visual interface technologies at Cornell University's National Supercomputer Facility.

At its simplest, the technology aids scientific analysis by grouping related data into "icons"—simple shapes such as ribbons that denote airflow over an aircraft wing or stick figures that illustrate demographic trends—that can be readily glimpsed for patterns. "It's the process of comparison that gives the scientist the insight," says James J. Thomas, a



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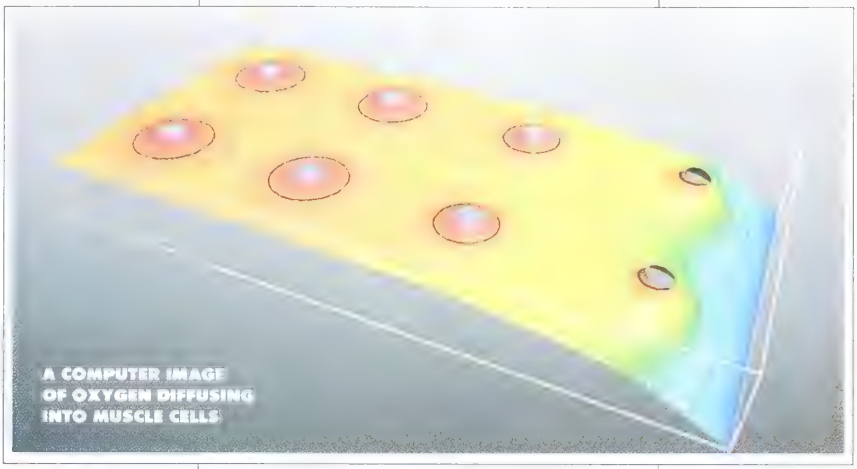
computer researcher at Battelle Pacific Northwest Laboratories, a private research organization in Richland, Wash.

That process is helping Robert B. Wilhelmson, professor of meteorology at the University of Illinois, figure out how storm clouds spawn tornadoes. He matches actual meteorological observations with numerical models of storms generated in the brains of supercomputers. Then, he uses his Macintosh to analyze the vivid images of these storms. "If I couldn't do this, I would spend years trying to figure out what one set of numbers means," says Wilhelmson.


A COMPUTER IMAGE OF OXYGEN DIFFUSING INTO MUSCLE CELLS

Increasingly, time and spatial dimensions are being added to visualization models. For instance, Wilhemson uses a twisting-ribbon icon to portray wind speed and direction inside a cloud. To breach the two-dimensional limits of current computer screens, other researchers have developed electronic goggles that, like the eyeglasses used to view 3-D movies, create realistic images that can accurately depict volume and movement. In Japan, meanwhile, Kozo Fujii, a professor at the Institute of Space & Astronautical Science, has developed a way for researchers to flip between visualization and numerical results. With a few keystrokes, the scientist can call up—and change—the calculations underlying the visual image on the screen.

Others are experimenting with better ways to compress many different elements into one icon. The idea is to display vividly all the information on a particular subject—instead of relying on averages, says Georges G. Grinstein, director of the Institute for Visualization & Perception Research at the University of Lowell in Massachusetts. "We're trying to present information in ways that allow the scientist to look and say, 'Aha,'" he says.

The ability to transform data into images quickly will be crucial as related technologies advance. In 1996, for example, the U. S. will launch the first of four satellites to track changes in the earth's atmosphere, oceans, and land. When all four of the Earth Observing System (EOS) satellites are operating, scientists will be receiving a billion pieces of data every day. Science "is reaching a point where there's no other way than to classify research by visual-

SWEDEN AND THE U.S.

Common Ground for the World Market

Issue date:
January 14, 1991
Closing date:
December 3, 1990

These Facts May Surprise You About Sweden

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- 92% of Swedish industry is privately owned.
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ization," says Daniel R. Brady, manager of visualization services and development at the NCSA.

The next step is to add sound and touch to visualization systems. Such efforts have both practical and research implications. One project at the University of Lowell will generate sound that seems to come from a precise location on a computer screen. That could help air-traffic controllers to pinpoint more quickly the location of each plane on their crowded monitors. Massachusetts Institute of Technology researchers, meanwhile, have developed a video-game-like "joystick" that responds to known chemical or magnetic forces. For example, when a drug researcher tries to align two molecules with opposing forces, the joystick kicks back.

RESEARCHERS FACE A BIG PROBLEM: THERE ARE NO UNIFORM STANDARDS YET FOR HOW TO DISPLAY DATA

The potential of the technology goes far beyond such research, to everyday architectural design, oil exploration, and medicine. Oil companies were pioneers—using early visualization methods to analyze seismic data for exploration. Recently, Arco Oil & Gas Co. began using 3-D visualization to decide how to squeeze the remaining oil from its aging West Texas reservoirs.

In medicine, the possibilities are limitless. Researchers at the University of Wisconsin are using visualization to study blood and oxygen flow in muscles and understand hypertension. Harvard Medical School professor Steven E. Seltzer believes that "synthetic" images of the body, made by combining scans of organ structure with those that measure function, may soon be available. Now, radiologists compare separate tests and join the images in their own minds to make a diagnosis. Synthetic images could speed up such interpretative work and improve accuracy. "The technical stumbling blocks have been rather daunting up to now," says Seltzer. "They're starting to break down."

The visualization technology has helped spawn companies such as Cognivision, Intelligent Light, Spyglass, Stardent Computer, and Wavefront Technologies. The growing interest from researchers in visualization has prompted DEC, Hewlett-Packard, and Sun Microsystems to add powerful graphics to their workstations. And workstation maker Silicon Graphics Inc. is bringing out a circuit card that will give the same capabilities to personal computers.

So far, however, there are no standards or uniform concepts for how to display information. Each brand of visualization software tends to use unique icons and display methods. That is proving a roadblock to researchers, limiting their ability to exchange information. "We'll never succeed if every computer company has its own special tools," says Michael K. Stenstrom, a professor of civil engineering at the University of Southern California in Los Angeles, who is leading a project to add visualization to the school's research.

But that's usually true of nascent computer technology, and the problem is likely to be overcome as more disciplines turn to visualization—and find that seeing is the path to discovery.

By Gary McWilliams in Boston, with Neil Gross in Tokyo and Otis Port in New York

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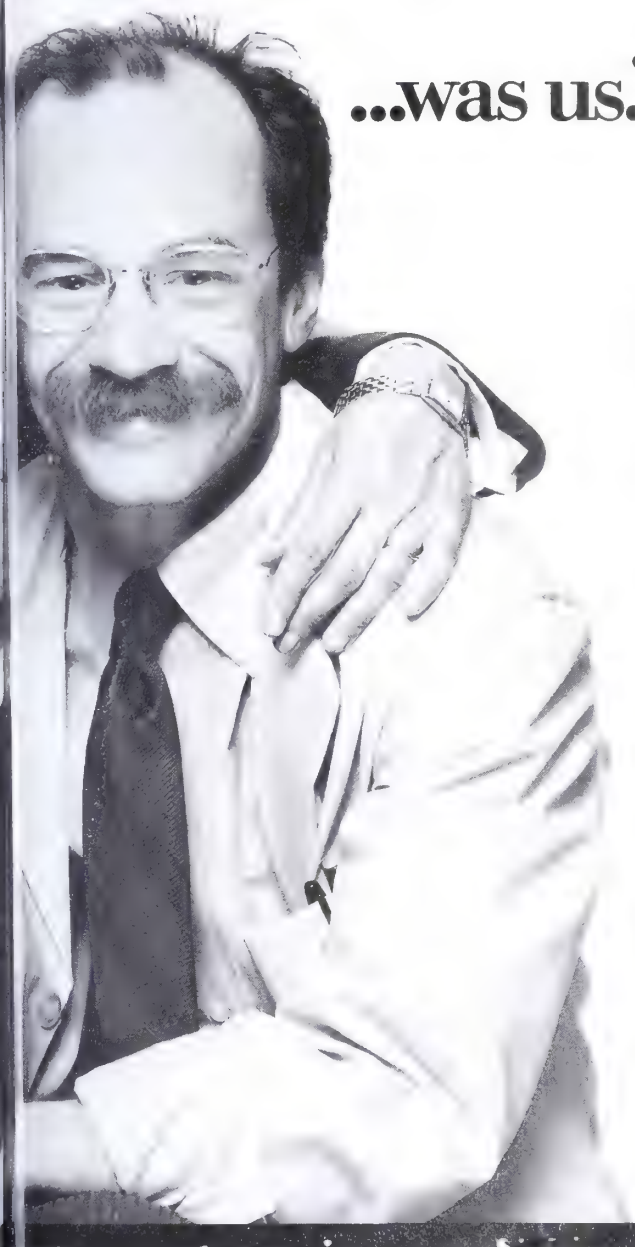

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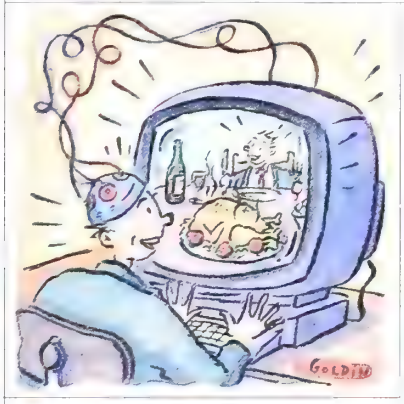
DRAWING A PICTURE OF HUMAN THOUGHT



A constant cacophony of electrical signals in the brain regulates such activities as speech, movement, and eyesight. Now, researchers in San Francisco have found a way to home in on signals related to one of the most magical functions of the brain: human thought.

Scientists at EEG Systems Laboratory, a nonprofit brain research center, have dramatically increased the resolution of standard electroencephalographs, or EEGs, which measure brain waves. They can create three-dimensional pictures showing, for example, the interrelationship of brain areas during the activation of memory. By increasing from 19 to 124 the number of points on the scalp used to record brain-wave signals and then feeding the signals into a powerful computer, the scientists can separate thought-processing signals from the brain's "background chatter." Once commercialized, EEG Systems Director Alan Gevins thinks the technology could be used in a wide variety of research projects, including assessing memory loss from illnesses such as Alzheimer's disease. Someday, he adds, it could even yield insights into the process of learning.

ALL THE BETTER TO WATCH JERRY LEWIS RERUNS

Crisper television pictures are one step closer to homes in Europe. Beginning early next year in France, Thomson Consumer Electronics plans to sell TV sets that can display broadcasts of both movie-quality images and conventional programming. These enhanced-definition TVs (EDTV), which have images crisper than regular sets but not as advanced as high-definition television, will be the first sold to the mass market, though the Japanese already sell them to movie studios.

The debut of Thomson's 34-inch EDTV will coincide with French broadcaster Antenne 2's plan to start transmitting, via satellite, uncut wide-screen images. Antenne 2 will use a pan-European transmissions standard that other EC broadcasters will begin using on a limited basis in 1991.

To take advantage of the wide-screen transmission, Thomson's new set sports a rectangular screen that picks up the full picture. With today's boxy sets, both edges of each movie frame are often chopped off. The new TV's $6,000 price tag includes a built-in satellite tuner, satellite decoder, 13-inch receiving dish, and cables, plus delivery and installation.

A WAY TO FIX GENES THAT GIVE CHOLESTEROL THE UPPER HAND

Like a few unfortunate people, Watanabe rabbits are born with a genetic curse. They have two copies of a faulty gene that renders them unable to remove cholesterol from their blood. The result: clogged arteries that lead to heart attacks and strokes at an early age. Even one copy of the defective gene—found in 1 out of 500 Americans—is bad news. By ag 60, half of the men with this genetic fault, known as familia hypercholesterolemia, have died of heart attacks.

Now, gene sleuths have managed to cure Watanabe rabbit temporarily, bringing a possible treatment for the diseas closer. James M. Wilson of the University of Michigan an colleagues at Albert Einstein College of Medicine and Massa chusetts Institute of Technology's Whitehead Institute too liver cells from rabbits, slipped in correct versions of the gene and then transplanted the altered cells into other rabbits. Th effects were dramatic: The rabbits' cholesterol levels droppe 30% and rose again only when the animals rejected the trans planted cells. To avoid rejection, Wilson is working on ways t guide the correct gene directly into the animals' livers. Tha would pave the way for treating people who have the disease

WHY COCAINE PLUS ALCOHOL CAN BE A DEADLY COCKTAIL

Cocaine users know that alcohol prolongs a cocaine high What they don't know is that the combination can b deadly. Recently, a team of researchers led by Dr. Deborah G Mash, a neuropharmacologist at the University of Miam School of Medicine, discovered that users of both drugs wh have underlying coronary-artery disease have 21.5 times th risk of sudden death than if they use cocaine alone.

The researchers think that both the prolonged high and th increased risk of death are caused by a potent chemical calle cocaethylene that is formed in the liver from cocaine an alcohol. The problem, they speculate, is that cocaethylene a fects areas of the brain that influence the autonomic nervou system—which controls the heart—thus kicking off heart fai ure. For the estimated 12 million Americans who use bot drugs, the implications are grim: After examining data fro 239 cocaine-related deaths, the team found that 62% of th subjects had the toxic compound in their blood. Even worse designer drug lords could produce it synthetically, raising th prospect that cocaethylene could show up on the streets.

THINK OF IT AS AN ICEBOX FOR TOXIC WASTE

Hazardous wastes languish in landfills for years, posing a threat to groundwater. While the nation tries to figure out a way to safely dispose of these wastes, two Seattleites have devised a novel way to at least contain them: ice.

They plan to use a new process, trademarked Cryocell, to freeze the earth beneath and around the waste. First, two layers of pipes are inserte deep into the ground around the polluted area. Then, refrige ants are pumped in, causing the ground to freeze into a she 50 to 70 feet thick.

Even the most corrosive chemicals and the nastiest isotope can't penetrate the frozen walls, says Ronald K. Krieg founder of the tiny startup, Concept RKK, that has patente the process. Concept's first project could be containing radioa tive waste at the Hanford nuclear reservation in Washingto

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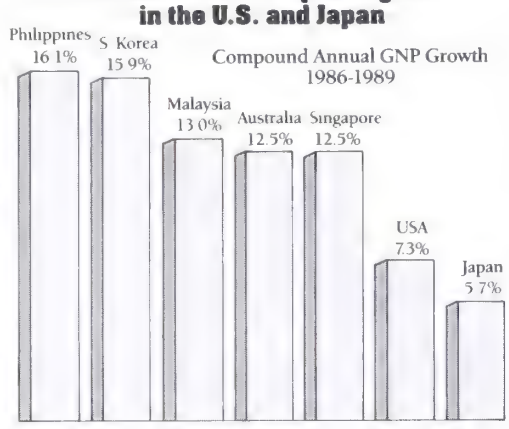

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Past growth rates are not necessarily indicative of future growth rates. Chart data should not be considered representative of an investment in the Fund. Source: International Monetary Fund.
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The rapid emergence of the Pacific Rim economies has significant implications for the pattern and intensity of international competition in industries ranging from food to microelectronics. Led by Japan and the so-called "four dragons" (Taiwan, South Korea, Hong Kong and Singapore), the economies of the region have become important sources of increasing demand for high-value products as well as for sophisticated, high-quality components and production inputs. As the world enters the 1990s, the locus of trade for North America has shifted from the Atlantic to the Pacific. US-Pacific trade since 1980 has averaged 9% growth while US-Atlantic trade has grown 7%. And, in 1989, US trade with the Pacific Rim stood at US$297 billion, almost 50% more than America's trade with Europe.

Globalization of the Pacific Rim

The economies of the Pacific Rim have become the center of attention in terms of international business strategy among the largest multinational corporations in the world. In fact, it is probably not too far afield to suggest that we are now witnessing the "globalization of the Pacific Rim."

The increasing globalization of the Pacific Rim economies is the product of several forces. First, it is the result of what Ted Levitt, former editor of the *Harvard Business Review*, has called the "globalization of markets." According to this perspective, we are witnessing an homogenization of demand among consumers in the US, Europe and Asia. Linked to the homogenization of demand is the growing saturation of markets along with an intensification of competition for new markets. Market saturation is hardly a permanent phenomenon in this era of rapid technological change. Nonetheless, the search for new, and possibly virgin markets has encouraged Asian firms to develop a more "global" perspective regarding their business development activities.

Second, changes in the manufacturing process as well as in the delivery of services have made both more susceptible to scale economies. The Ford Escort is made in the UK by an American firm with parts from 11 other coun-

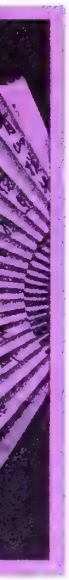
Globalization and Regionalization of the

PACIFIC RIM

tries. Apple computers and Boeing airplanes are also global products in the sense that no one nation or firm is responsible for designing, manufacturing, and marketing these products in their entirety. The information technology revolution has helped provide the infrastructure to meet the communication and coordination requirements needed to move large quantities of people and resources around the world to different spots simultaneously.

Third, globalization is being driven by technology change. The R&D processes have become globalized as the potential success of the processes of technological discovery and commercialization are becoming more dependent on the pooling of specialized resources and the sharing of the costs. This change not only has proven critical for Japan, but also for Taiwan, Korea, Singapore and even Hong Kong.

A fourth force for globalization has been the general move towards liberalization and privatization across the globe. Many of the formal and informal trade barriers that remained in place in spite of the initial successes of the GATT regime have now been broken down as a combination of economic imperatives and political pressures have dictated greater openness among all countries.



Responses to Globalization

For the nations of the Pacific Rim, globalization has been a catalyst that has fostered a number of critical changes. These changes are manifested in the following developments.

First, the impact of globalization can be seen in the expanded global spread of companies from the region. A look at the *Global 500* reveals that Japanese companies comprise 111 of the biggest firms; they are joined on this list by 11 South Korean and 10 Australian companies as well as one company each from Taiwan and Malaysia. Japanese banks are playing a key integrating role in establishing a broad-based financial network throughout the world. Just as significant, however, is the expansion of direct investment by firms from the region. Much publicity has been given to the sharp increases in Japanese investments in the US over the last few years. Interestingly, Japanese firms have been followed by firms such as Tatung from Taiwan and Samsung from South Korea—all of whom are seeking to gain closer proximity to their customers as well as get behind potential trade barriers. Not far behind will be multinationals from Malaysia selling automobiles and from China selling computers and precision instrumentation.

Sydney, Australia's quick and efficient monorail system.

A further testament to the global spread of firms from the region is probably best revealed by looking at the rapid pace at which Japan, Korea, and Taiwan firms have attempted to expand into Eastern Europe and the USSR. Recognizing the tremendous opportunities that perhaps lie ahead as these countries divest themselves of the vestiges of socialism, it is becoming increasingly clear that the next battleground for the playing out of competition among firms from Asia will be the reformed socialist world.

The second manifestation of globalization in the Pacific Rim is the growing technological interdependence of the various actors. For years, the US had been considered to be the global technological leader. Today, we are witnessing more of a two way flow of technology. Whereas a few years ago, corporate America was complaining about alleged Japanese efforts to "buy" their way into America's source of basic R&D, today we find that a new crop of American scientists are anxiously seeking entry points into the Japanese R&D establishment. While the numbers are still comparatively small—150 compared with over 5,000 Japanese working in US labs—there is clearly a trend afoot.

Hong Kong's central business district.

Technological interdependence also extends to other countries in the region, many of which are becoming more important as partners in the global technological race. In the computer and electronics industries Taiwan's technological assets are going to assume an increased importance in the playing out of global competition in the years ahead. This has already occurred to some extent with the agreement between Acer and Texas Instruments to manufacture sophisticated computer memory chips. By 1992, Taiwan hopes to supply approximately 4.0% of the world's demands for chips—which would put it in the position of leap-frogging every European producer and making the island the 4th largest producer behind Japan, the US, and South Korea.

Similar things are happening in South Korea that also serve to reinforce the technological interdependence of the Pacific Rim with the rest of the world. As of 1989, South Korea ranked third in the world in the production of semiconductors, though it only accounts for about 7% of total world production. Firms such as Samsung Electronics, which now is able to produce 1 MB DRAMs at a rate of 5-7 million per month, have joined the ranks of leading global players such as Toshiba—whose monthly production is estimated to be 9 million DRAMs.

Perhaps, the best evidence attesting to Korean progress in microelectronics was the decision of Hitachi to enter into a joint venture with Goldstar Electronics in June 1989 for the production of 1 MB DRAM chips. The agreement involves the first major involvement of a Japanese firm in Korea's high-technology drive. This agreement also complements another

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The aircraft cabin was also very clean and well maintained. The vegetarian meal ordered by us was well prepared and tasty.

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This is my second flight with Thai and hopefully not the last.

I appreciate the punctual and efficient departure, arrivals, attractive plane interiors, good food and service. I cannot think of any improvements. I have flown on at least twenty other carriers. Thai International is certainly among the very best. Thanks.

MRS. JOYCE MYHR, LOPEZ ISLAND, WEST AFRICA

The service on this flight was the best that I have ever had on any airline.

The flight staff were courteous, prompt and friendly. The food was excellent and I shall certainly endeavour to fly Thai again.

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MISS VICKY BURNELL, ISLAMABAD, PAKISTAN

Thai International was a joy to travel with. I have never received such special service and consideration.

Your air hostesses are thoughtful, efficient and friendly. They are all worth their weight in gold. I will certainly fly Thai in the future.

Thank you for the beautiful orchid — my compliments to you, Thai, for understanding people and minding people's business needs so well.

Thank you.

MISS J. VYORAL, CAMMERAY, AUSTRALIA

I wish to tell you that I find your service quite superb.

To my eyes it is as if you had placed me in the First Class and not Business.

MR R.W. BAIN, DIEREN, THE NETHERLANDS

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MR. R.H. HOLMES, JOSLIN, AUSTRALIA

There is no doubt in my mind that you have the best stewardesses in the world.

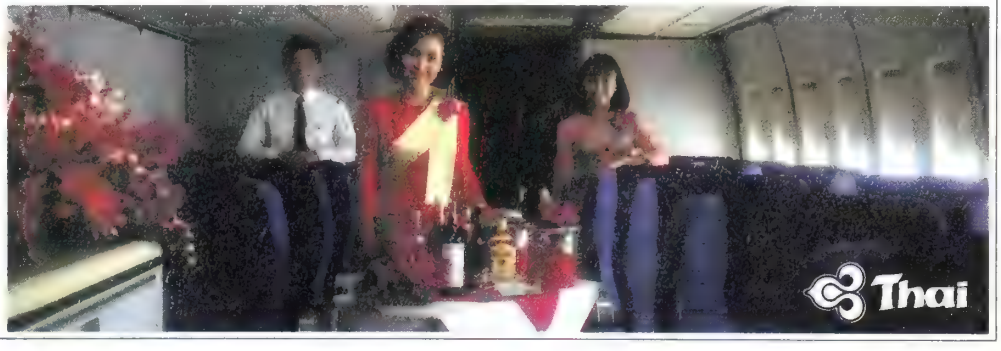
Everything is great here, the plane, the seat, the food and the English the Captain is speaking.

By the way, I have never been in a plane where you could order like in a restaurant.

This is great. This is a great airline company. Thanks for a great flight.

MR. MARTIN JAKOBSEN, FARUM, DENMARK

THAI. WINNER OF AIR TRANSPORT WORLD'S PASSENGER SERVICE AWARD FOR 1989.



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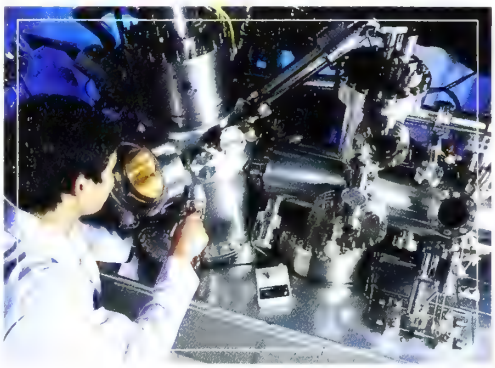
important joint venture, that is, the cooperative arrangement between Hewlett Packard and Samsung for the manufacture of an advanced computer workstation.

Regionalization and the Pacific Rim

The globalization of the Pacific Rim takes on added significance when looked at in conjunction with recent developments in the European Economic Community and the US-Canada trade pact. Some observers of the world scene have suggested that we are witnessing the emergence of two parallel, but potentially opposing, forces—regionalization and globalization. There are those, however, that believe the regionalization is the predominant force in international affairs today. Under this scenario, the world may be moving towards the emergence of three major trading blocs: North America, Europe, and Asia. The formalization of the EEC 1992 initiative may, in the eyes of some, be seen as a sort of supra-nationalistic response to the rising economic and technological power of Asia, especially that of Japan. When combined with Europe's traditional concerns regarding American economic and technological hegemony, regionalization may not simply be a feature of globalization, but in reality may be an anathema to it.



Efforts are underway to strengthen domestic R&D capabilities in Taiwan.

The trend towards regionalization is being fed and abetted by a number of forces. First and foremost is the shift away from comparative advantage and a new emphasis on competitive advantage. Despite the growing attention to globalization at the level of the corporation, industrial policy and technology targeting are the forces that are driving the behavior of the nation-state. Creating country-based competitive advantage is the paramount game being played on the global chessboard.

The Future Global Orientation of the Asia-Pacific Region

Where does East Asia stand in the midst of these two seemingly opposing forces? It has become quite clear that while there are those who continue to view the rise of the Pacific Rim and the emergence of the Pacific Century with a great deal of trepidation, the majority of the international business community and government policymakers see the growth and prosperity of the region as a tremendous opportunity. Plugging into Asia's technological assets, in particular, would seem to represent a tremendous opportunity for companies both inside and outside the region. Many of these synergies have already begun to occur, leading to the appearance of a host of new "strategic alliances" that differ from the traditional joint venture in that they are characterized by the two-way or "bilateral" flow of technology rather than the unilateral flows of the past. In many cases, former competitors are entering into cooperation agreements as each seeks out a "win-win" outcome rather than pursuing a zero-sum game as in the past. In the airlines industry, new linkups such as that between Singapore Airlines and Swissair promise to alter the nature of international business as we known it today.

Within Asia itself, these types of relationships are also beginning to emerge. Japanese companies are recruiting software engineers from the PRC. Taiwan companies are engaging in a sometimes, low profile, but nonetheless substantial, process of technology transfer vis-a-vis the China mainland as they move some of their lower-end manufacturing operations to such places as Xiamen and Shenzhen. Hong Kong companies are using Chinese design engineers as a means to revitalize such industries as textiles. Even Japan, which for a long time was ostracized for its limited contributions in the form of technology transfer, has now changed and has clearly adopted a more forthcoming set of policies to promote technology transfer.

The Pacific Rim will continue to lie at the heart of these two seemingly contradictory processes: globalization and regionalization. That we are witnessing the globalization of East Asia with many of the economies of the region being drawn into the mainstream of global competition, few can deny. There is both a "push" and a "pull" dimension to this process—the push coming from the desire of the respective Pacific Rim countries to compete in high value-added products and services; the pull emanating from the desire of many of the larger multinational firms to ally with Asia's steadily growing R&D and manufacturing capabilities. The globalization of the Pacific Rim will also continue to be driven by concerns about protectionism. It is said that the successful companies of the future will be those that "think global, but act local." The test of whether the nations of the Pacific Rim will discard their penchant for participating in a globalized economy as a full player will be the degree to which regionalization becomes a significant constraint on their ability to compete in various local settings. No less an authority than Lee Kuan Yew, Prime Minister of Singapore, recently noted in his speech to the 1990 Davos *World Economic Forum,* "in an interdependent world, economic growth is determined more by global than regional factors." The future prosperity of the Pacific Rim depends on a liberal world trading system and technology market.

Denis Fred Simon is the Associate Professor of International Business and Technology at the Fletcher School of Law and Diplomacy at Tufts University. He is also the Director of Fletcher's Center for Technology & International Affairs. Professor Simon specializes in the study of international technology transfer.

Continued

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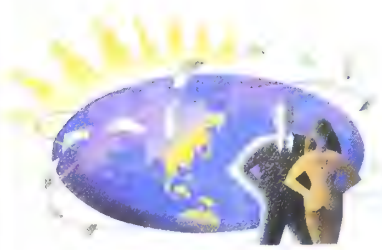


THE ROLE OF THE UNITED STATES IN THE EVOLVING PACIFIC RIM ECONOMY

Professor Richard Drobnick
Director of the IBEAR Program
School of Business Administration at USC

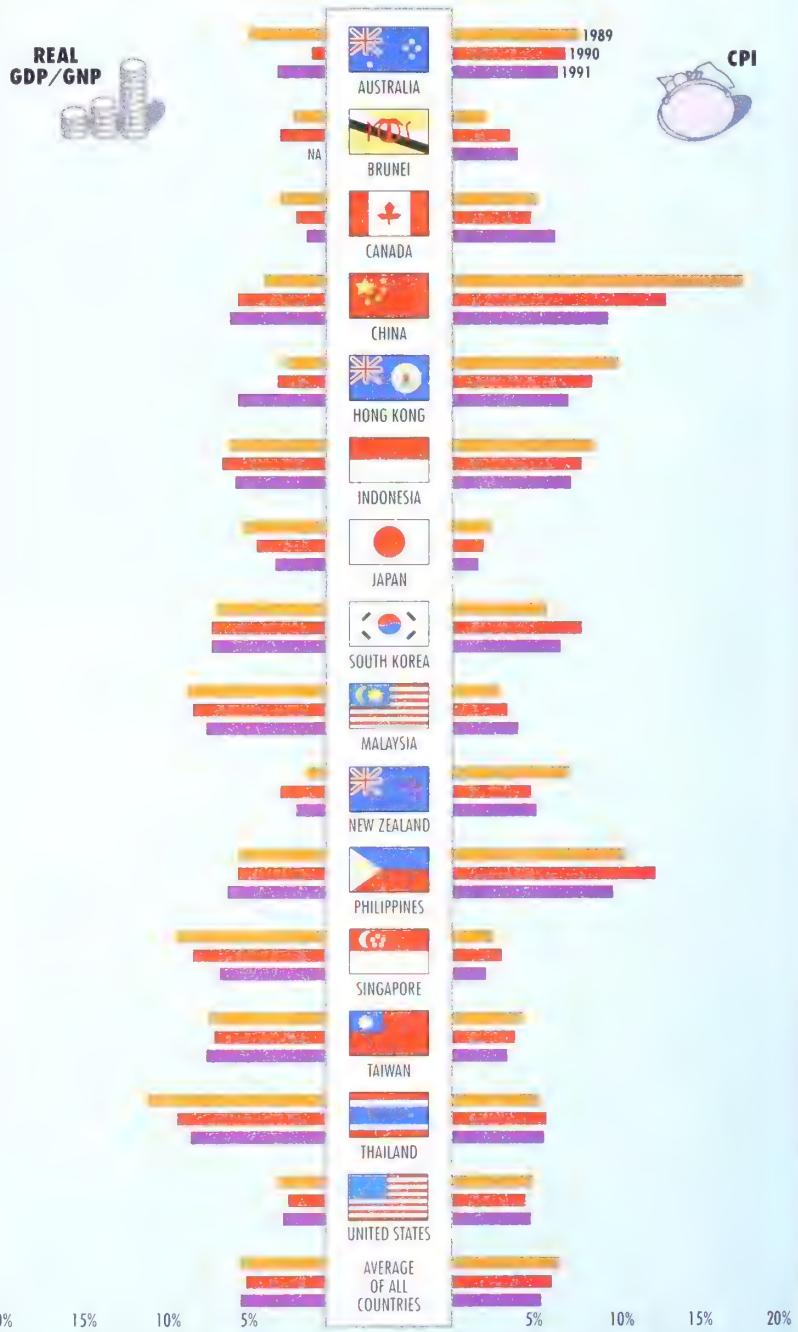
The evolving Pacific Rim economy is one in which economic and social relations among its members are rapidly intensifying. Among the fifteen member countries of the Pacific Economic Cooperation Conference (PECC)—comprising the ASEAN countries, Asian NIEs, Australia, Canada, Japan, New Zealand and the United States—intra-regional exports increased from 54.4% of their exports in 1970 to 65.7% in 1987.

This intensification of relations between the US and the Pacific Rim economies is occurring as a result of greater flows of capital, technology, merchandise, services, and people. The capital movements include loans and aid, as well as portfolio and direct investments. The people movements include salesmen, workers, tourists, managers, students, and immigrants. All of these trends increase the interpersonal contact between the US and Pacific Rim nations in a variety of overlapping roles as competitors, customers, suppliers, partners, classmates, and neighbors.

One of the most visible indicators of the continued expansion of US ties with Asia has been the growth in trans-Pacific cargo movements. Even as aeronautics experts discuss the possibility of building a hypersonic airplane to accommodate the expansion of passenger traffic between the US and the Pacific Rim, the reality is that cargo movement has been increasing at a much faster rate than passenger traffic. Air cargo volume in 1989 was double that of 1985 and triple that of 1982. Demand for space on aircraft is not keeping pace with the ability of companies such as Boeing and McDonnell Douglas to provide new airplanes to the Asian and American airline carriers. A primary factor underlying this rapid expansion has been the lifting of quotas by countries such as Japan and South Korea as well as improved position of the US dollar. According to William H. Clarke, a research associate at the Washington, DC-based consulting firm Airline Economics, "as recently as 1986, the flow of air traffic from Asian nations to the US was more than twice the flow in the opposite direction, but today the traffic volumes are roughly equal."

This Pacific Rim integration process is being stimulated by massive Japanese capital flows to the US and all other Pacific Rim nations. Via loans, acquisitions, and

1990-1991 Forecast of Real Economic Growth and Increase of Consumer Prices

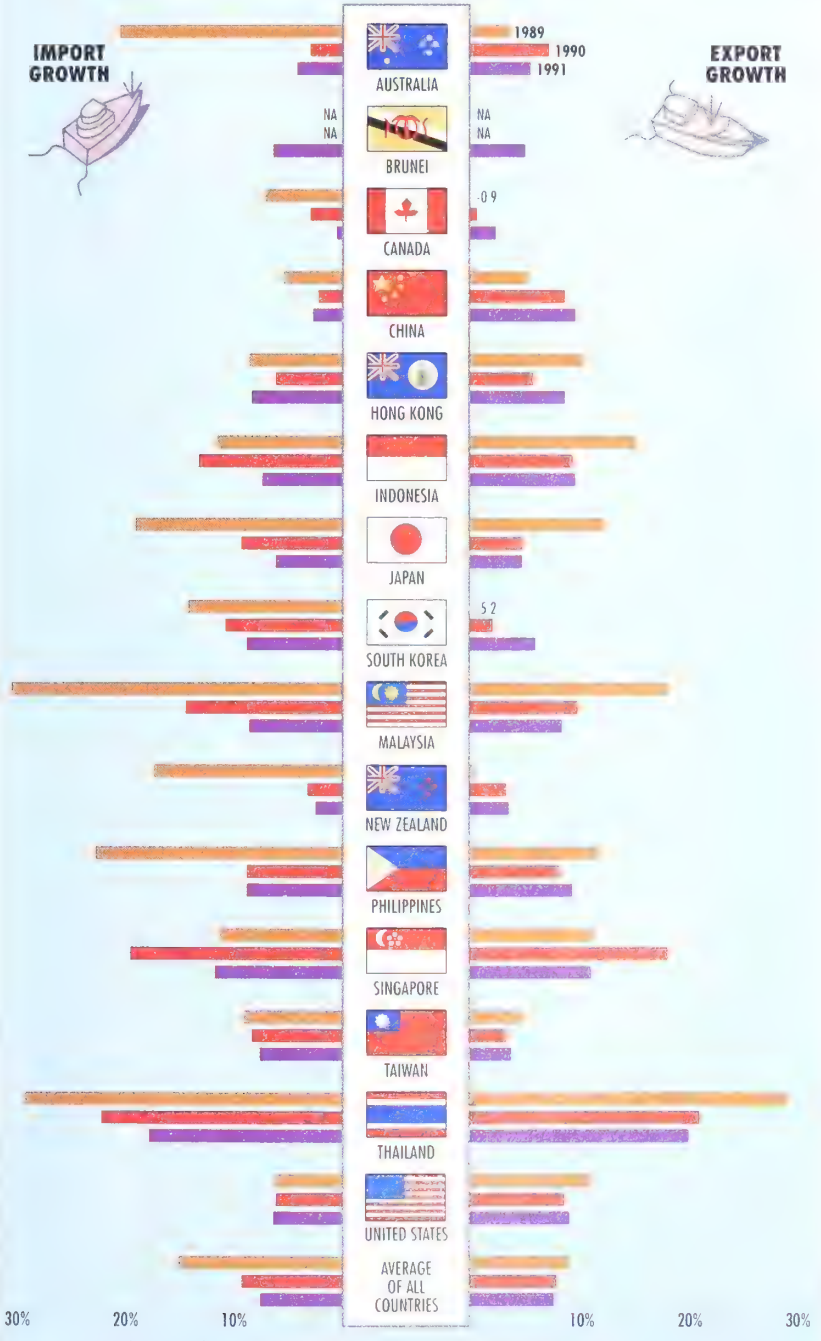


Source: U.S. National Committee for Pacific Economic Cooperation, *Pacific Economic Outlook 1990-1991*, San Francisco, May 1990, p.48. The oil price assumption for these forecasts was $19-20 per barrel, through 1991.

"green-field" investments, Japanese firms are re-shaping the Pacific Rim's (and the world's) industrial structure and trade patterns, as well as the intricate web of economic and political interdependencies. The US, Taiwan, and Korea also contribute to the economic integration of the Pacific Rim by moving production offshore to lower cost production sites. Some of these production location decisions are stimulating economic integration among close neighbors such as Singapore and the Malaysian state of Johore and the Indonesian island of Batam.

Will this process of Pacific Rim economic and social integration continue in the 1990s? It is certain to do so in the Asian economies of the "Western Pacific" and Japan is certain to be the "conductor" orchestrating the process. The speed and the nature of this intensification of cross-border relationships will depend on the effects of ongoing changes in the global political- economic environment.

1990-1991 Forecast of Real Import and Export Growth

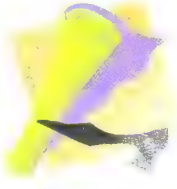


Source: U.S. National Committee for Pacific Economic Cooperation, *Pacific Economic Outlook 1990-1991*, San Francisco, May 1990, p.48. The oil price assumption for these forecasts was $19-20 per barrel, through 1991.

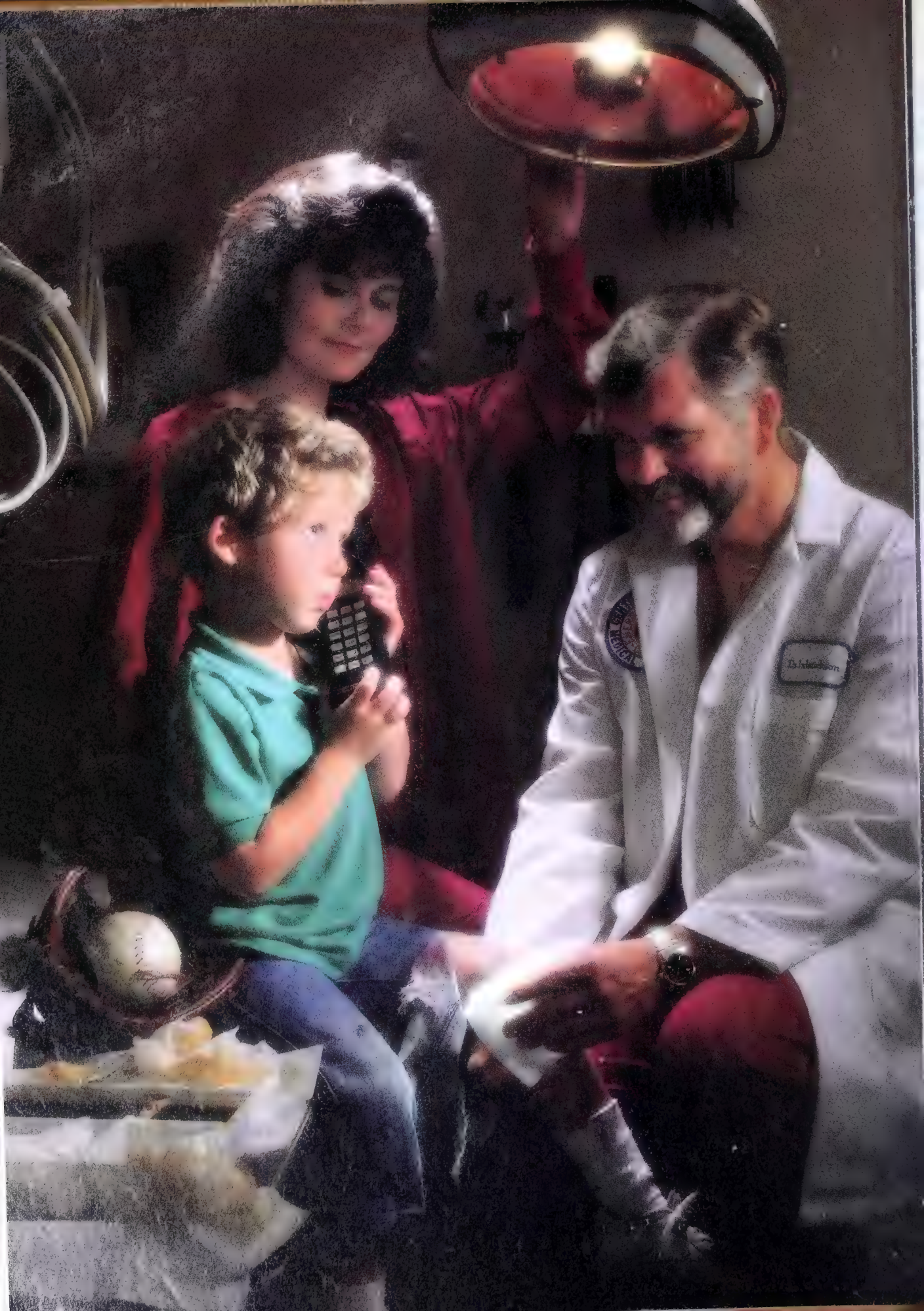
The Changing Role of the United States in the Pacific Rim and the World Economy

The huge economic stimulus that the United States provided the Asian economies (and the world economy) in the 1980s will diminish in quantitative terms in the 1990s as America slows its imports from Asia and increases its exports to Asia. This changeover in trade patterns is occurring not as a result of an increase in American protectionism, but primarily as a result of "market" forces of a weaker currency, slower income growth, a stronger savings rate, and rising productivity in the manufacturing sector in the US. The 1988 Omnibus Trade Act has also stimulated a more vigorous implementation of US trade laws to open markets and reduce unfair trade practices.

However, the stabilization of the international economic system requires a continued expansion of exports from America and a slowing—if not an actual reduction—of imports into America. America's domestic demand may have to grow more slowly than its production of GNP for the rest of this century. American leaders recognize the country's need for foreign capital may increase unless American products continue to become more competitive. The emphasis on improving US competitiveness will be combined with a sustained American effort to ensure that the markets of this country's trading partners become open enough and strong enough to absorb $500 billion worth of US exports per year by the early 1990s. Such a reversal of American consumption and trade patterns will profoundly shape the economic structure of the Pacific Rim and the world in the years to come.



Technology transfer will continue to be a major point for US-Pacific Rim business



HOW FUJITSU HELPS A BIG HOSPITAL STAY SMALL.

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Saint Cloud Hospital, working with its service provider, United States Cellular, studied a variety of cellular telephone brands before it finally settled on Fujitsu. It chose Fujitsu not only for the quality of its telephones but for the quality of the company behind them. Fujitsu is one of the world's largest computer and communications companies—a high-tech powerhouse that's a major force in the global information revolution. With 115,000 employees, projects completed in a hundred countries, and manufacturing facilities across the U.S.A., it's a company that's many things to many different people. To the people at Saint Cloud Hospital, it's a giant that's helping them stay small.

Gary Gibson of Fujitsu talks with Bill Becker of Saint Cloud Hospital and Joe Salaski of United States Cellular Mobile Telephone Network. United States Cellular, a nationwide carrier which operates the cellular network in St. Cloud, Minnesota, strongly recommends Fujitsu phones. For information call Fujitsu at (214) 690-6000.

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relations as US firms find that the quid pro quo for entering Asian markets will be a willingness to share technology with their local partners. Motorola's agreement with Toshiba involving microprocessor technology as well as the notable FSX agreement between General Dynamics and Mitsubishi are illustrative of the nature of the the links that are becoming increasingly commonplace. In this same context, there is likely to be expanded interest among Asian companies in securing technology within the US. Numerous firms from Korea and Taiwan have set up "technological listening posts" in Silicon Valley and Route 128 in Massachusetts as a means to access American know-how. In addition, firms such as Sumitomo and Mitsubishi will continue to expand their ties with American universities as a means to plug into US R&D. While some may worry about this expanded access, the reality is that it underscores the extent to which the countries of the Pacific Rim continue to look to US industry as the technological leader in industries ranging from computers to lasers. When looked at in conjunction with the fact that more and more American engineers and technologists are gaining access into Japanese labs, it also highlights the growing technological interdependence between the two sides.

On a regional basis, Asian countries will continue to compete with each other to improve their climate for foreign investors. Each nation will also continue to seek special consideration for both better access to the US market and relief from US pressures to open their markets or appreciate their currencies. The technological and business imperatives for stronger, more extensive partnerships between firms from the Pacific Rim and the US, will, of necessity, have to be accompanied by a greater American willingness to respond to these demands.

The US economy will also become more integrated into the financial and economic structure of Japan. In this new international environment, global economic leadership is clearly becoming more collective in character. Under such circumstances, the United States must undertake a big push to generate trade surpluses sufficient to service the debts build up during its 1980s consumption binge if it is to maintain its position within the leadership ranks.

US companies have expanded ties with the Pacific Rim countries. Exxon's Chemical Plant in Australia pictured.

Given its strong financial position, Japan will be the major player in financing and supervising Third World development programs. Germany will be the major player in financing and supervising the reconstruction of Eastern Europe and the Soviet Union.

THE US AND THE PACIFIC ECONOMIC COMMUNITY

Even as the US relationship with Asia undergoes a variety of changes, the American government has taken a number of steps to ensure that the host of trade frictions that have been a source of resentment at times have not obscured the continued US commitment to better relations with its Pacific neighbors. According to officials at the Office of the US Trade Representative, US policy has been designed to avoid a breakdown of the "free trade" regime that has been so important to Asian regional prosperity since the 1960s. Legislation such as the 1988 Omnibus Trade Bill has provided a tool for leverage to help open up Asian markets. Accordingly, the US has taken an active role in such organizations as the Pacific Economic Cooperation Conference and the Asia-Pacific Economic Cooperation forum. US policy has been to utilize these multilateral fora as a means to articulate its own opinions as well as to establish the rules for the future evolution of economic and business relations among all the nations of the region. In a world in which there continues to be a great deal of discussion about regional trading blocs however, US relations with Asia, as with its relations with the EEC, will continue to emphasize liberalization and equal treatment.

Singapore, a major link for trans-Pacific trade.

Continued

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More than 60,000, for example, our Commercial Airplane division other Boeing divisions.

And for every Boeing employee, there are at least three others working with us at more than 4,000 of our suppliers' plants around the world.

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Because while there may be only two people sitting up front, there are a quarter of a million others standing behind them.

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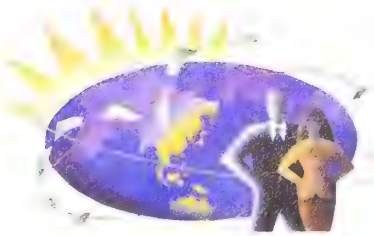


JAPAN AS A GLOBAL PLAYER: MYTH OR REALITY?

Professor Michael Borrus
Deputy Director of
the Berkeley Roundtable
on International Economy (BRIE)
at UC Berkeley

Economically and technologically, Japan is a major player in the world economy. Japan boasts the world's second largest national economy, accounting for about 13% of world GDP, smaller only than the US, and equal to over half of Western Europe as a whole. Japan imports raw materials, natural resources, and increasingly, manufactured goods from around the globe. Japanese products, companies and investment can be found in almost every market throughout the world.

Japanese manufacturing prowess is readily apparent almost everywhere. Japan's 4-megabyte (MB) memory chips, lap-top and super-computers, liquid crystal displays, hand-held TVs, camcorders, miniature lasers, and fiber optic lightguides, are equally compelling evidence of exceptional technological prowess. In many of these areas, Japanese firms are more than major players; they are the world's dominant producers.

Perhaps there is no better example of Japan's technological prowess than the development of technology associated with high-definition television. From the very beginning, Japanese researchers have understood the importance of three key technologies: microelectronics, telecommunications, and computers. Rather than pursuing each of these fields separately, the Japanese adopted an approach characterized by their systematic attempts to integrate these three technologies to produce a series of high-value, high-quality media products. Through a combination of support from NHK as well as MITI and the Ministry of Posts and Telecommunications and extensive corporate investments by companies such as Toshiba and Hitachi, the Japanese are well on their way to creating a vast array of new media technologies. These technologies promise to have major consequences for both consumer and industrial products. This push to create a new series of products and services through introduction of significantly enhanced monitor displays and transmission technologies. According to Richard Elkus, Jr., President and CEO of Prometrix and a former manager of VCR development at AMPEX, "if present trends continue, Japan's prominence in the field of new media technologies—which is built upon the Japanese penchant for linking technologies rather than compartmentalizing them, will help catapult Japanese industry into the global technological lead in the 21st century."

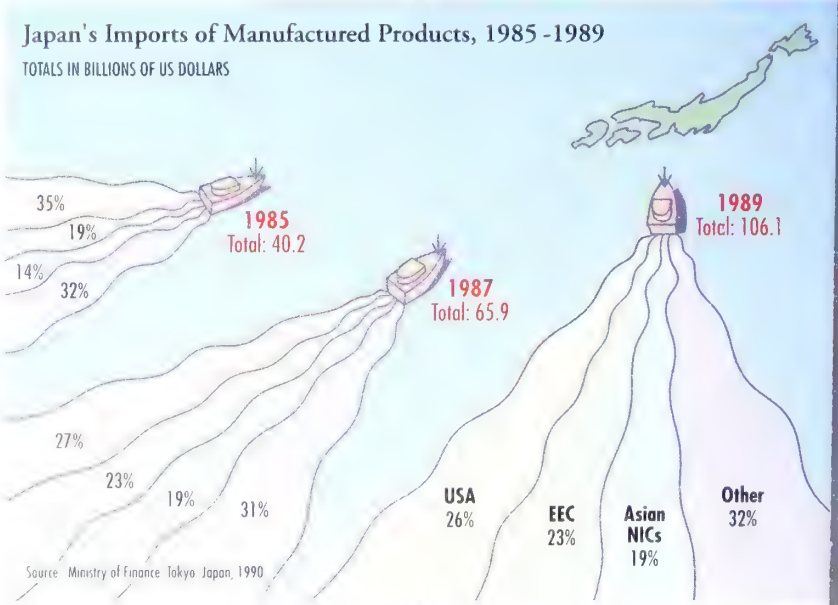
That Japan is a dominant regional economic power, with the capability of shaping the terms of industrial development in the Asia-Pacific region, few would question this assertion. In several key global industries, such as electronics and information technology, Japan is already heavily involved in setting the terms of international competition. Thus, in essence, Japan can be seen as a regional power with worldwide industrial interests and influence poised to exert its global influence over a broader range of industries and technologies.

THE ECONOMIC DIMENSIONS OF REGIONAL POWER

Over the last few years, the domestic Japanese economy has grown at average annual rates that other industrialized nations envy. Last year, for the first time ever, total Japanese domestic investment in industry and infrastructure surpassed domestic US investment, and was twice the US level on a per capita basis.

As a result of its growing economic power and remarkable economic performance, Japan is clearly Asia's dominant economy. It is also the region's technological leader, its primary supplier of capital goods, its dominant exporter, its largest foreign direct investor, and increasingly, a vital market for imports (though the US remains the largest single import market for Asian manufactures.) Moreover, Japan is increasingly the region's primary financier, with the use of the Yen as reserve currency expanding rapidly.

Since the dollar's peak in 1985, trade within Asia has grown faster than trade between Asia and other regions. Japan lies at the heart of this important development. Between 1985-1989, Japan's total annual; trade with the NICs and ASEAN countries doubled to about US$118 billion. Include other East Asian economies and the PRC, and Japan's intra-Asian trade reached well over US$150 billion by 1989, accounting for about 1/3 of Japan's total world trade.



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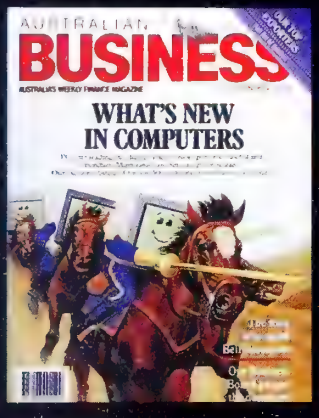

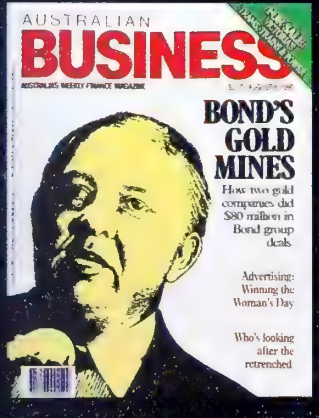

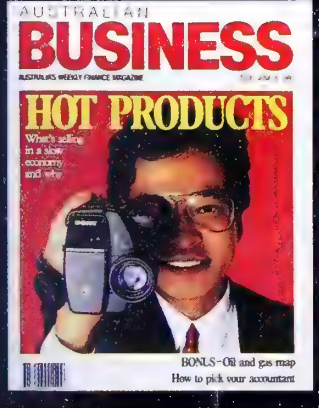

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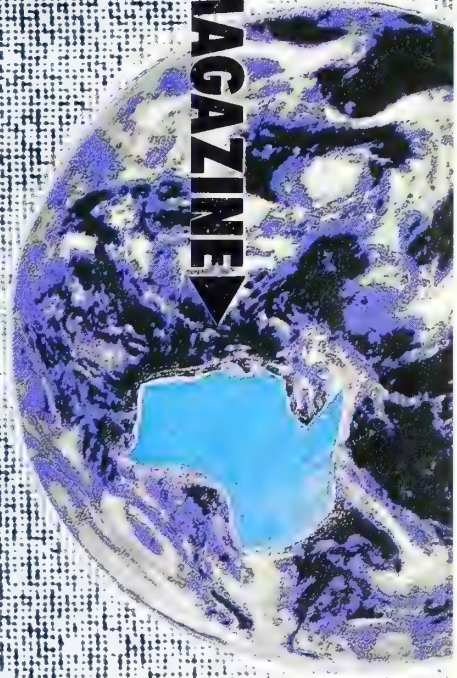

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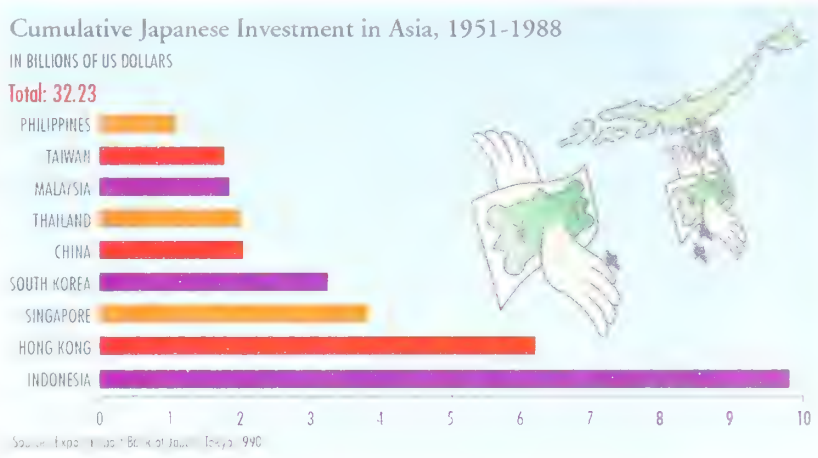
Not surprisingly, Japan is usually the major exporter to other Asian economies. In the late 1980s, for example, Japan supplied on average about one-quarter of the NICs imports (vs. 16-17% by the US). During that time, Japan increased its position as the region's primary supplier of capital equipment, intermediate components, and technology intensive goods, with the latter accounting for almost 2/3 of total Japanese exports to the region's rapidly developing economies. Indeed, Japan supplied well over 50% of Korea's and Taiwan's total imports of technology products in the late 1980s.



But Japan's regional dominance is no longer confined to its exporting success, for in the latter half of the 1980s, Japan's imports of manufactured products have risen dramatically. Manufactured products as a % share of total Japanese imports have risen from 31% in 1985 to about 50% in 1989. Japan has increased its manufactured imports from all major global sources, but has done so most rapidly with the Asian developing economies. Indeed, manufactures now account for about 70% of the NICs exports to Japan—albeit largely in labor intensive manufactures where appreciation of the Yen benefitted the NICs relative labor cost advantages.

These increases in Japan-Asian trade reflect an upsurge in Japanese foreign direct investment into the rest of the region. Since 1985, Japanese investment in the Asian NICs has grown by about 50% per year, and by about 100% per year in the ASEAN nations. By the late 1980s, Japan had accumulated over US$32 billion worth of investment in other Asian economies, more than half of the total coming in the last five years. In 1990, Japanese industry will invest about twice as much in Asia as US corporations.

MITI surveys indicate that over 40% of Japan's total exports and about one-half of its manufactured imports reflect intra-firm transfers between Japanese companies and their affiliates in foreign countries. These intra-firm transfers appear to be especially pronounced within Japan's Asian trade. They help to frame the increasingly complementary relationship between Japan and its major trading partners. Japanese firms supply technology intensive components, sub-systems, parts and materials, and capital equipment to their affiliates in other Asian economies for assembly into products that are sold via export in third country markets (primarily the US and other Asian countries).

The Development of Global Assets

Building upon this increasingly secure regional base, Japan has selectively begun to extend its influence around the globe. Japan's much noted trade surplus with the rest of the world is principally achieved in three sectors of manufactured goods: automobiles, electronics, and machinery. In those industries, Japan is a global player in the sense that its companies are production leaders in major segments of each industry, win market shares around the world, and increasingly are able to influence their corporate counterparts from other countries respond to their strategies and practices. To be sure, other Japanese industries are world class and compete on a global basis. These include, for example, the steel and shipbuilding industries. But, such sectors represent a declining share of total Japanese production, and cannot any longer set the terms of global competition in the same way as Japan's automobile and semiconductor manufacturers.

In these latter industries, Japanese producers now far surpass their competitors in their ability to manufacture products in volume, with high quality and reliability, and low costs. In most areas of traded complex manufactures, Japanese products enjoy outright price and quality advantages internationally. Whether examining working inventory levels, production cycle times, annual capital investment per worker or factory automation, Japanese industry outstrips most competitors in almost every category of manufacturing excellence.

Driven by investment to support market penetration and skills acquisition in its globally competitive industries, and by real estate investment opportunities, Japanese foreign direct investment has also been expanding rapidly on a worldwide basis. In recent years, North America has been a primary target, accounting for about 40% of Japan's cumulative total foreign investment. There has been a parallel upsurge in Japan's investment in Europe as Japanese firms have begun to position themselves for the changing EEC market structure.

Of course, Japan's emerging global financial strength is not limited to its direct investment activities. Nine of the ten largest banks in the world are Japanese (measured by assets). They are expanding their exposure in the developing world even as the US multinational banks limit theirs. Nomura Securities is the world's largest securities firm. Japanese investors purchase about half of every US treasury bond and bill auction, and are such dominant investors that they may force the US to denominate some of its obligations in yen. Japanese investors hold perhaps half of the current $600 billion cumulative US indebtedness. Increasingly, they are major players as well on the Euro-currency markets.

Impressive as the export of Japanese products and capital is, however, it

Japan's emergence as a world leader in high technology that will underlie Japan's future stake as a global player. Japan's remarkable progress to the forefront of high technology is by now well known.

The most visible manifestation of Japanese success in high technology has been Japan's mounting dominance of microelectronics. But Japanese prowess in component technologies extends far beyond semiconductors. Japanese innovation dominates display technologies, mass storage, power management, packaging, and optoelectronic component technologies like miniature lasers.

Japan's technological leadership extends beyond even critical electronic and precision component technologies. Japan's industrial technology base has no peers in fields as diverse as mechatronics and advanced materials, few peers in the implementation of factory automation, and has begun substantially to challenge US leadership in computer science and telecommunications technology. The Japanese are considered to be only marginally behind US efforts in biotechnology, more or less on par with the US in superconductivity, and well ahead in fields as diverse as commercial nuclear reactors and high-precision processing.

Indeed, a recent MITI White Paper on Industrial Technology proclaims Japanese leadership in most of the technologies just mentioned, and emphasized Japan's lead in its "ability to develop high-technology products" in areas ranging from microprocessors to assembly robots. Of course, Japan cannot match the breadth of US excellence in high technologies associated with space and aeronautics technology, life sciences, software, and marine and earth sciences. But all of these areas have been targeted for development.

As the Asia-Pacific region achieves greater integration in investment, trade and technology with the rest of the world, its dominant player, Japan, will be increasingly well positioned to play a constructive role in the restructuring of the global economy. Over time, as Japan's economic and technological power grows, it will increasingly be in a position to define the parameters of global competition in a variety of sectors. And, as these parameters are defined, it is clear that the Japanese firms will possess an arsenal of the requisite managerial and technical skills to enable them to remain key competitors in every product line from CD players to wrist watches to superconductors.

Ironically, despite the three major challenges confronting the Japanese, the reality is that pressures from the US and Europe for greater global participation by Japan have already begun to yield significant dividends. US economic and trade policies have encouraged Japanese companies to invest into the US and to consolidate their position there. European trade and investment policies are encouraging precisely the same type of move into Europe.

Japan dominates even the US in component and manufacturing technologies.

The breadth of Japanese technological strength will also encourage more rapid globalization. More and more of the world will want to have access to Japanese technological outputs. This is especially true in the industrialized countries, where domestic producers like the UK's ICL and America's Apple are finding themselves increasingly intertwined with Japan's technological future.

Over time, as Japan's industrial, financial and technological strength grows, the notion of an East Asian trading bloc may get more credence, especially if Japanese investment and banking activities become the network through which tighter links are formed among the various economies of the region. In all likelihood, it is through its role as a regional power that Japan will most easily and directly make its influence felt on the international level. For Japan, however, it would clearly not be beneficial if the world fragmented into regional trading blocs. Japan's economic future is intimately tied to the future prosperity of the world economy. In spite of the incremental nature of change within various Japanese domestic arenas, Japan can be expected to be a force of greater globalization in the years ahead.

The Japanese economy is almost four times larger than the economies of Taiwan, South Korea, Hong Kong and Singapore combined.

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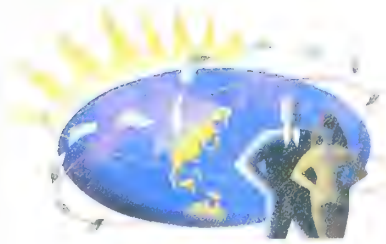

TRADE AND ECONOMIC TRENDS IN THE PACIFIC RIM

Professor Edward K.Y. Chen
Director, Center for Asian Studies
Hong Kong University

The global economy has undergone drastic changes since the 1980s. The Pacific Rim of Asia has emerged as the center of the world's economic activities over the past few years. Moreover, recent trade and economic trends in the Pacific Rim have convinced more and more business executives and government officials that the Pacific Century is not just close to reality, but it may have indeed already arrived!

The participation of the Pacific Rim countries in the global economy is not simply confined to trade and investment in traditional goods but has extended to the high-technology sectors and the provision of sophisticated services. Rapid economic growth is no longer confined to the East Asian NIEs (newly industrialized economies: Taiwan, South Korea, Singapore and Hong Kong), but is now experienced also by the Southeast Asian countries such as Malaysia, Thailand, and the Philippines. Japan has continued in the past few years to enjoy relatively high economic growth rates by the standard of developed countries. And until most recently, the growth of the PRC economy has been phenomenal. In the near future, with the rapid growth of Thailand and Malaysia and the opening up of Vietnam, the prospects for Southeast Asia also seem quite favorable.

To a greater or lesser extent, the dynamic Pacific Rim economies have been growing rapidly in the past few years on the basis of exporting manufacturing products. At the same time, many of them have come to realize that such a strategy may not be sustainable over time given the changing character of global product and technology markets. In fact, despite the high growth rates many Asian economies are now enjoying, e.g. an estimate of 8-9% for Singapore, South Korea, Malaysia, Thailand, and Indonesia, it is expected that all Pacific Rim economies will, of necessity, undergo a significant transformation in the future. During this time, there may be a temporary slowing of growth and higher rates of inflation as structural adjustments are introduced.

The vibrant city of Hong Kong at night.

These adjustments, however, promise to provide a new economic framework for a sustained period of growth throughout much of the 1990s and beyond.

As one discusses Asia's future with various persons in region across both government and business, it also readily becomes clear that a slowing down of growth in the Pacific Rim will not last for long. Interestingly, a "recession" defined in Asian terms has still meant the ability to achieve respectable growth rates in the range of 4-5% per annum. In Europe or the US, such a growth rate would signify a boom.

Economic revival, if we can call it that, could occur as early as the beginning of 1992. There are enough underlying global and regional economic factors to suggest that the outlook for economic development and trade expansion among the Pacific Rim countries is very optimistic. In particular, the increasing degree of complementarity in industrial production among countries in the Asia Pacific has created somewhat of a sub-regional division of labor. The division of labor is not entirely horizontal in the sense that the entire industry or product is passed on, but also vertical in the sense that the subprocesses may be passed on to other countries in the production of a particular product.

The leader is of course Japan, followed by the Asian NIEs, then Malaysia and Thailand, and then Indonesia and the Philippines.

Even for countries at the same level of development in the region, specialization is normally possible for the achievement of complementarity. When one country "graduates" in a particular type of production or process activity, countries in the next level will take it over. For example, when Japan moved out of the standardized consumer electronics business, it was taken over by Taiwan and South Korea. Now that shifts are occurring in the production structure of these two rapidly growing economies, manufacturing has begun to shift to Thailand and China; eventually it will make its way down to Indonesia and the perhaps even Vietnam.

A major constraint on intra-regional trade in the past had been those policies adopted by many of the Asian developing economies that sought to protect infant industries such as labor-intensive consumer products. In recent years, however, a movement of significant liberalization of trade has occurred in many of the Pacific Rim nations. In the case of Taiwan and

South Korea, where huge trade surpluses had been generated in recent years, formal measures have been taken to lower their tariff rates and liberalize many other trade restrictions. Even in the case of the Philippines, Thailand, and Indonesia, we can observe the adoption of similar measures to remove trade barriers. Under such circumstances, it is envisioned that intra-regional trade will increase and the dependence of Asian developing countries on Western markets will decline gradually in relative terms. This, of course, means that Asia itself will generate its own internal growth dynamic that will take it into the 21st century on a very positive note.

Asia's High-Tech Thrust

Spurred by the imperative of "catching up" with the advanced industrialized nations and using technology as a form of economic leverage, each of the Pacific Rim nations has substantially increased both direct investment and indirect support for building-up a domestic science and technology infrastructure. Even Hong Kong has moved in this direction as evidenced by the expanding role of the Hong Kong Productivity Center and the decision to create the new HK University of Science and Technology. The focus of this investment has covered a range of items, including the formation of several government-sponsored laboratories, establishment of various industry- oriented assistance organizations, expansion of graduate-level technical education programs, and creation of special funds for supporting the acquisition of foreign technology and domestic R&D programs. While government involvement has not insured the success of the overall effort or for any specific project, it has had a significant influence and shaping effect on the process of technical upgrading through the above actions. In many ways, the current government authorities have replicated, to some extent, the role played by government in the process of innovation in Western Europe and Japan. Its most significant role has been as an "initiating mechanism." Through their industrial targeting policies, their ability to reduce costs, and their willingness to increase rewards, these respective governments have been able to stimulate market response and affect the R&D process itself.

Garuda Indonesia's maintenance building at Sukarno-Haita International Airport, Jakarta.

Photo Paul Van Riel (Black Star)

Taiwan's attempt to create a capable and

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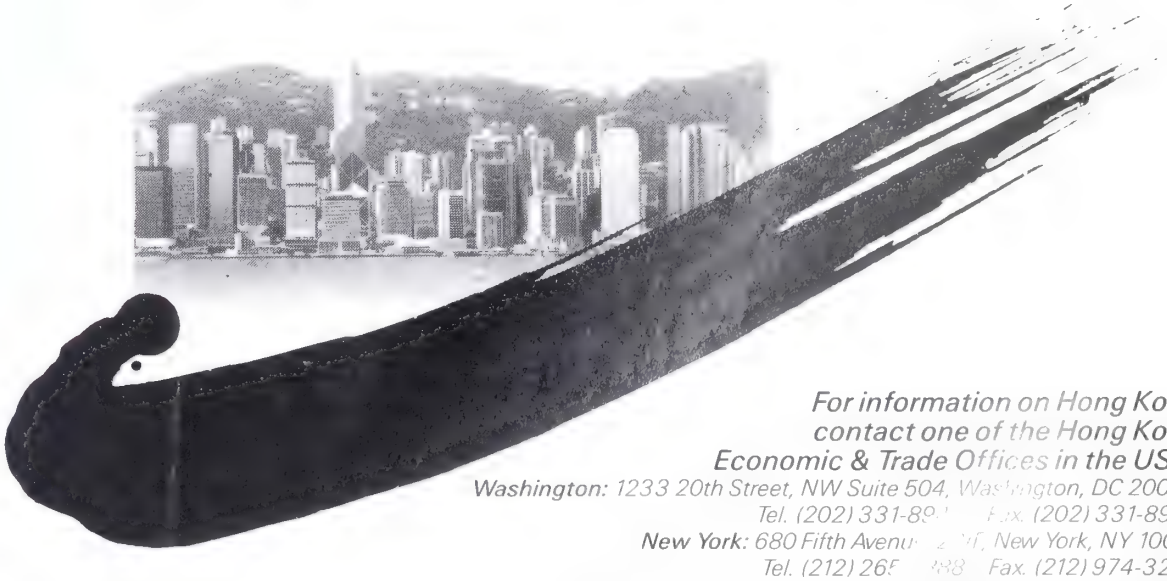

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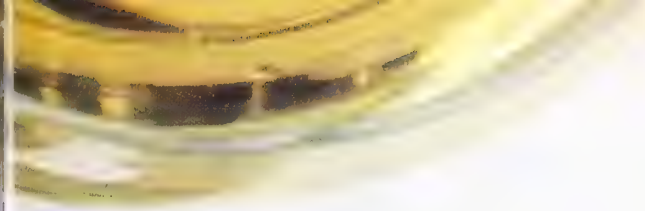

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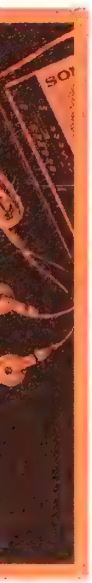
responsive R&D infrastructure reveals many of the important features of the overall effort in the Pacific Rim to strengthen and increase indigenous S&T resources. Taiwan's efforts began to take shape in the early 1970s, mainly as a result of a combination of rising wages, the growing cost of imported petroleum, expanding protectionism, and foreign investment considerations. In the Taiwan case, however, the greater "arms-length" relationship between business and government—a consequence of the island's heretofore unique domestic political circumstances—has meant that the task of forging stronger links between the two sets of actors has been much more difficult than in South Korea or Singapore. With some exceptions, the private sector has not been as responsive to government's invitation to join forces. As a result, the government has felt the need to play a larger direct role than in the Korean case, where financial policies have been much more widely employed. This larger role has not necessarily been reflected in overall government spending, but has been manifested in the "initiating" role noted earlier in the Western European and Japanese cases.

In 1978, total expenditures in Taiwan on national research and development constituted 0.48% of GNP, equalling about US$111 million. Government accounted for over 56% of the total, while the private sector contributed about 30-35%. More important, however, private sector spending on R&D was only 0.12% of sales (compared with between 2.0%-3.0% in the US and Japan), reflecting the generally small size of Taiwan firms and their tendency to ignore the potential value of a long-term commitment to research. By 1984 total national expenditures climbed to 1.0% of GNP or US$ 540 million. Estimates are that by 1985 total R&D spending reached US$634 million (1.06% of GNP) and by 1986 it reached US$ 808 million (1.04% of GNP). Preliminary government figures for 1987 and 1989 indicate that it reached the 1.16% and 1.22% of GNP level respectively, which would mean that between 1980-89, R&D spending in Taiwan grew at an average annual rate of 12%—which has been faster than that of Japan (4.1%) but slower than that of South Korea (14.3%). According to Taiwan's "Ten Year Science and Technology Development Plan (1986-1995)," projected R&D expenditures are to reach 2% of GNP by 1995 and 2.5% by the year 2000. The government share of R&D spending has been gradually dropping as private sector expenditures have slowly increased. Here again, the government hopes that the private sector share of R&D will grow to 60% by the mid-1990s. Yet, while there are indications of growing involvement by the private sector in Taiwan's overall expanding R&D activities, they should not obscure the more activist and critical role of the government, particularly in promoting new strategic, technology-based industries.

Perhaps the most important manifestation of government policy has been th



Asia-Pacific Trade Matrix

PERCENT CHANGE 1982-1988

FROM \ TO	HONG KONG	SINGAPORE	TAIWAN	S. KOREA	NIES	JAPAN	CHINA	U.S.A.	ASEAN-4
HONG KONG	-	94.3	271.8	423.5	209.6	22.4	1743.0	159.8	28.1
SINGAPORE	40.3	-	313.0	143.2	85.6	50.0	390.4	258.7	66.9
TAIWAN	238.0	224.7	-	183.6	228.9	2.6	-	173.9	108.1
S. KOREA	293.5	210.8	354.3	-	278.5	252.5	-	241.7	94.1
NIES	169.7	160.7	298.0	253.2	192.5	236.9	1464.2	196.8	68.5
JAPAN	148.7	90.8	238.3	217.1	255.8	-	171.0	146.9	24.6
CHINA	252.0	130.6	-	-	238.5	67.4	-	92.6	110.0
U.S.A.	132.0	79.5	177.8	104.2	124.1	80.0	73.0	-	7.8
ASEAN-4	153.8	6.6	153.5	156.2	45.8	-0.8	170.3	68.8	28.2

Sources: International Monetary Fund, *Direction of Trade Statistics Yearbook*, 1989 Notes: ASEAN 4 comprises Thailand, Malaysia, Indonesia and the Philippines. The export data includes that of exporting and re-exporting
*Not revealed in official statistics.

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establishment of the Hsinchu Science and Industry Park in central Taiwan. The development of the park was spearheaded by Taiwan's National Science Council and by K.T. Li, formerly the Minister without Portfolio for Science and Technology Applications. Minister Li is the individual most frequently cited as the principal architect of Taiwan's economic growth and the main force behind Taiwan's push into high technology. According to Michael Ying-mao Kau, who heads the Taiwan-based 21st Century Foundation, "in its broadest sense, the park represents Taiwan's movement into the next stage of economic development, where industries will be characterized by their skill and knowledge intensity rather than their mere labor intensity." The park, in several critical respects, has replaced the three export processing zones in overall importance. During the 1960s and 1970s, the EPZs were the keys to Taiwan's export expansion drive. Now, the Hsinchu Park, characterized by its emphasis on high-technology industry, has replaced the EPZ as the engine driving the economy. Investments in the park reflect the island's current target industries, particularly microelectronics, computers, computer peripherals, information science, materials, automation and robotics. Important for the future, the park is also the site of some of the first foreign firm R&D efforts on the island—which now equal about 0.5% of Taiwan's total R&D expenditures.

WHITHER THE PACIFIC RIM?

For once in the history of economic development, capital and technology may no longer be the most crucial constraints facing developing nations. So long as these countries can provide a stable political and macroeconomic environment, inflows of necessary capital and technology for economic development will take place as a matter of course. There is little doubt that the Pacific Rim nations will continue to be drawn into the mainstream of global business and trade as they possess not merely these requisites but also a number of other favorable assets.

Massive projects are underway to modernize the transportation and telecommunication infrastructures in China.

Perhaps most important will be Asia's personnel resources. Asia's labor force has accumulated a vast amount of experience over the last 20 years as the local skills mix and wage rates have served as a principal attraction for foreign companies. Today, however, as we witness the globalization of markets and products and examine the specific needs of companies that profess to have a global orientation, it is no longer simply low cost labor that will be a strategic asset. In fact, in some countries such as the PRC, the presence of a large labor force may be a serious liability if skill levels are not significantly upgraded over a broad base of the population. Given the increased emphasis on technology-based competition in the evolving global business environment, the emphasis in international business will be on product differentiation, quality, and high value-added. In deciding where to put one's money around the world in general, and within the Asia Pacific in particular, those countries which have made heavier investments in human capital and better social infrastructure for a healthier, more trainable, and better skilled labor force will be preferred. In this regard, most of the countries of the Asia Pacific seem to have little worry, especially when one also considers the fact that Asia continues to send the most students and scholars to the US for advanced education among all the regions of the world.

Seto Ohashi bridge during construction in 1989.

"Overall," asserts David James, Chairman of Business Programs at the East West Center in Hawaii, "if the present trends towards globalization continue ahead, there is little doubt that the countries of the Pacific Rim are in a good position to take advantage of the emerging opportunities." The existence of major international and regional financial centers (Tokyo, Hong Kong, and Singapore) in the Pacific Rim and the recent financial liberalization measures undertaken by the majority of the Pacific Rim economies have made the financing of economic development in all of its dimensions comparatively a much easier matter than before. Viewed from this perspective, the key questions surrounding the concept of a Pacific Century should not be focused on whether it will happen but rather when it will occur and how fast it will spread its impact.

Continu

HAWAII — GATEWAY TO THE PACIFIC CENTURY

Richard L. Grant
Director, Pacific Forum/CSIS,
a Honolulu-based
private foreign policy research institute

Blessed with a balmy tropical climate, beautiful, white, sandy beaches, sparkling blue waters, and a generous, welcoming people, Hawaii is without doubt America's island paradise in the Pacific. The Hawaiian Islands are not just a great place to escape to for some fun in the sun, however. Increasingly, the state is becoming a great place to do business.

Among the multinationals that have established a Pacific base in Hawaii are AT&T, IBM, United Airlines, Motorola, and The Prudential. These corporations have come to Hawaii for more than just nice weather. The state, ideally situated geographically for quick, efficient outreach both to Asia and mainland United States, is the premier location in the Pacific in which to establish a major center of operations that can access booming Asian markets. The state government is supportive of business, the economy is one of the strongest in the nation, the local work force is competent and professional, and the crime rate is one of the lowest in the nation. "Two recent announcements on locating in Hawaii, one by a US stock exchange and the other by a Hong Kong financial brokerage house, show Hawaii to be an increasing strategic link in a global business and financial network" according to Roger Ulveling, Director of the Department of Business and Economic Development for the state.

HAWAII - REACHING OUT TO THE PACIFIC

The Asia-Pacific region now totals over 40% of world GNP. Regional growth rates, which outstripped world growth rates throughout the eighties are expected to remain strong through the end of the century. Today, trade between Asia and the United States exceeds that of any other region in the world, and accounts for 43% of all US imports and 29% percent of US exports.

For companies eager to tap into this economic dynamism, Hawaii is clearly the place to be. The simple fact of its geographic location makes the state the ideal jumping off point for businessmen traveling to Asia. Tokyo and Osaka are roughly eight hours by plane from Honolulu; almost 100 scheduled flights per week transit between these two cities and Honolulu International Airport; Hong Kong, Singapore and Sydney are all equally accessible.

The continental United States is also within easy reach from Honolulu. Over two hundred flights a week make the five hour trip to Los Angeles or San Francisco, the eight hour flight to Chicago is made fifty six times per week and over eleven scheduled flights link Hawaii to New York each week.

HAWAII'S STRATEGIC TIME ZONE

All these cities can be readily accessed from Honolulu in a single eight hour business day without ever leaving Hawaii. Hawaii's location in the Central Pacific creates strategic time zone overlaps with business hours both in the mainland US and Asia. Calls placed in the early morning in Honolulu — beginning at 7:00 or 8:00 am will reach business associates on the US East Coast in their early afternoon, while colleagues in Asia can be reached from late morning onwards, Honolulu time. According to Phil Norris, Manager of Prudential-Bache, Hawaii, "It makes a wonderful relay. I can talk to New York in my morning and to Hong Kong in my afternoon on the same business day."

The attractiveness of Hawaii's strategic time zone is further enhanced by the first class telecommunications network that links the state to the rest of the world. The majority of the underwater digital fiber optic cables linking the continental United States to Asia transit through Hawaii and

Reaching Asian Markets... Is Hawaii The Link You Need?

A new study reveals Hawaii's advantages as a regional base for Asia/Pacific business operations:

- Established business and cultural links to Pacific Basin
- Central Pacific location, time-zone position, and advanced communications and transportation
- Stable political and economic base
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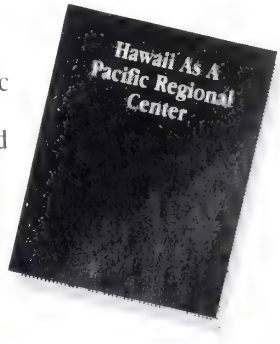
- Strong work ethic and a great quality of life.



Find out why companies such as Federal Express and AT&T already have seized these advantages and made Hawaii their Pacific center. For a copy of the Executive Summary of the study, call or FAX your request on your company letterhead to:

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Business Development
Chamber of Commerce of Hawaii
735 Bishop Street, Suite 225
Honolulu, Hawaii 96813
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Hawaii can link up with all thirteen worldwide communications satellites.

Not surprisingly, the American Stock Exchange (AMEX) is examining plans to establish a securities trading operation in Honolulu in order to capitalize on the fact that Hawaii spans the trading gap between the closing of the New York and Tokyo stock exchanges. In the words of James R. Jones, AMEX Chairman, a Honolulu exchange "could operate during the hours when no other exchange is operating in the world", thereby creating the missing link to a 24 hour worldwide trading day.

A Cultural Bridge to Asia and the United States

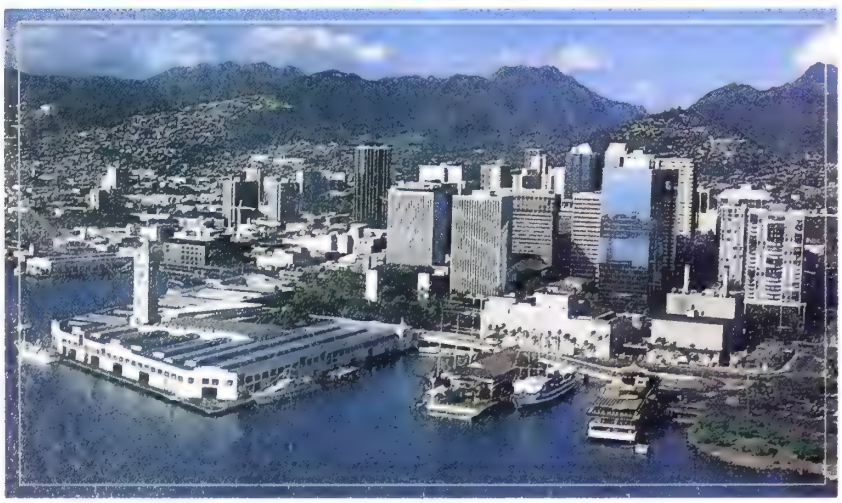
Hawaii enjoys a multi-cultural society with a strong Asian dimension. The state's ethnic diversity adds to the overall quality of life — the exposure to different traditions and heritages, the truly stunning choice of cuisines offered by Hawaii's many fine restaurants, the vibrant cultural festivals that take place throughout the year — without doubt one of the benefits of Hawaii living.

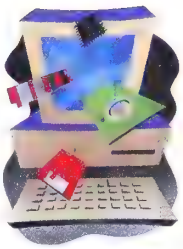
This ethnic diversity has direct benefits for business, too. Many Asians find conducting business an easier and more pleasant experience in Hawaii, where Asian and American customs blend and accommodate each other, than on the mainland, where culture shock can be a problem. In the words of Lee Gray, President of Gray Distributing : "We can work Asia, we can work the Pacific. When a customer wants to visit the US he's more comfortable coming to Hawaii than going to the mainland. We have the food he likes and the people he feels comfortable with."

In addition, barriers caused by language difficulties are easily overcome in Hawaii which has a large, multilingual work force. The presence of so many people who boast fluency in Japanese, Chinese, or other languages is a boon for Westerners as well. US businessmen can draw on this pool from the local work force at no extra cost, since bilingual or multilingual employees are a common and permanent feature in Hawaii.

A number of organizations have already turned this unique cultural diversity into a strategic business asset. In 1972, the Japanese computer giant, Fujitsu, established the Japanese-American Institute of Management Science (JAIMS) in Honolulu, offering courses for Japanese doing business in the United States and seminars on Japan for US executives. The world renowned East-West Center, established thirty years ago by the US Congress, now offers executive training programs to assist US and Asian-based corporations doing business with each other, while the University of Hawaii offers a course each year to executives throughout the Pacific Rim.

Hawaii's strategic time zone overlaps with business hours in both the US mainland and Asia.





A Growing High-Tech Sector

The state government activel promotes the diversification an internationalization of Hawaii economy, and has created severa high-tech R&D centers. Say AT&T executive Bill Martin : "I couldn be happier with Hawaii's state governmen support." The Hawaii State High Tech nology Development Corporatio (HTDC) estimates that the high-technol ogy sector — which spans everything fron electronics to the space industry (Hawa now has a Space Development Authority — generates nearly $1 billion in revenu and employs over 9,000 people.

Some of the most promising and exci ing new technologies being developed i Hawaii are in the energy field. Hawaii volcanic activity makes it a natural sourc of geothermal power, enough to generat — at a minimum — 600 megawatts pe year through the end of the century. small geothermal plant, on the Island Hawaii, produced 16.1 million KWh power for the Hawaiian Electric Ligh Company in fiscal year 1989. An add tional 25 megawatts is expected to b delivered to the electrical grid in 199 when a second plant, also on the Bi Island, becomes operational.

Ocean thermal energy conversion, process which capitalizes on differences i temperature in surface water and wat from the ocean depths, also holds gre promise, not only as an alternative sour of energy, but also because byproduct such as fresh water, are generated from th process. Hawaii is moving forward with i development, backed by local governmen and Japanese funds Japanese and the U Department of Energy.

Hawaii's Vibrant, Stable Economy

The diversification of Hawaii's econ my into high-tech, financial services, ar telecommunications is taking place with a favorable local economic environmen Tourism, which together with governme spending and construction fuel the stat economic engine, accounted for abo 40% of the 1989 gross state produ (GSP) of $22 billion. Drawing visito equally from Asia and the mainlan tourism is expected to remain strong.

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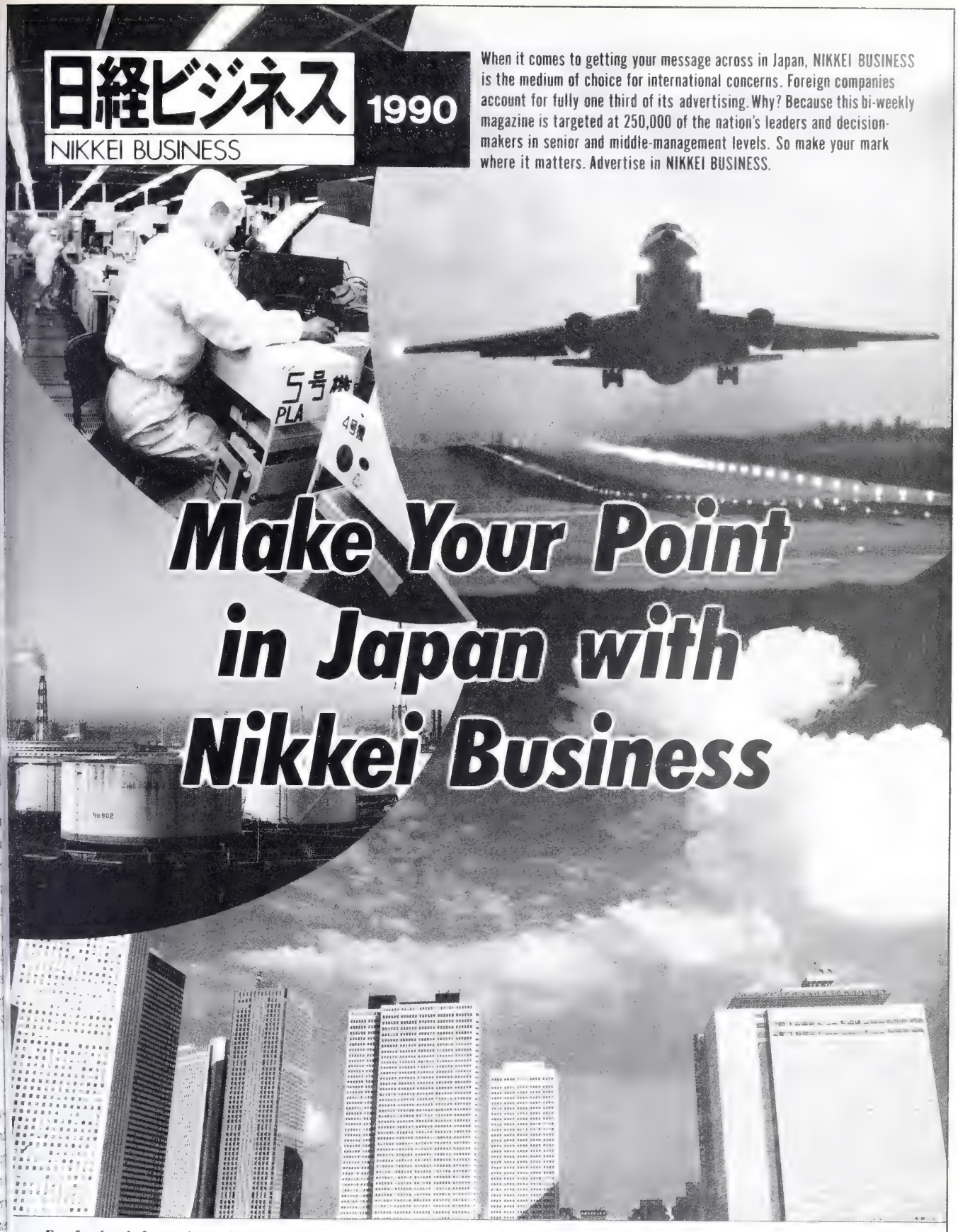

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Hawaii currently has the second fastest personal income growth rate in the nation, 7.6%; its unemployment rate, 2.9%, is one of the lowest in the US; and the US Department of Commerce predicts that Hawaii will rank sixth in economic growth nationwide through the end of the century. It has a healthy banking sector, which controls over $40 billion in assets and which has been relatively unaffected by shock waves which have damaged US banking on the mainland. Loan and deposit growth rates in 1989 were both healthy, for example, at over 15%.

Hawaii is also an affordable place for business. Rates for commercial property rentals, at an average of $31 per square foot per year, are significantly lower than any other major Pacific Rim city, including Los Angeles. Hawaii commercial tax rates are among the lowest in the United States, falling well below those of both New York and Los Angeles.

Although the cost of housing in Hawaii is the highest in the nation, it pales in comparison to prices in Tokyo. Moreover, the quality of housing in Hawaii cannot be matched anywhere in Asia and the residential real estate market is characterized by high appreciation. This stable, prosperous economic environment has attracted significant foreign investment, totalling over $1.9 billion in 1989 alone. While the bulk of this investment is Japanese in origin, others are players as well. The Australian giant, Broken Hill Proprietary Co. Ltd (BHP) acquired Pacific Resources Inc., Hawaii's second largest company in 1989, and Hong Kong's leading financial services company, Jardine Matheson, owns one of the state's leading conglomerates, TheoDavies.

Investment in Hawaii, by both US and overseas companies is likely to grow in the coming years. The quality of life in the state will always be an attraction. Factoring in Hawaii's strategic location in the middle of the economically dynamic Pacific, its first-rate business infrastructure, strong and stable economy, make it an irresistible choice for the establishment of corporate Asia-Pacific hubs.

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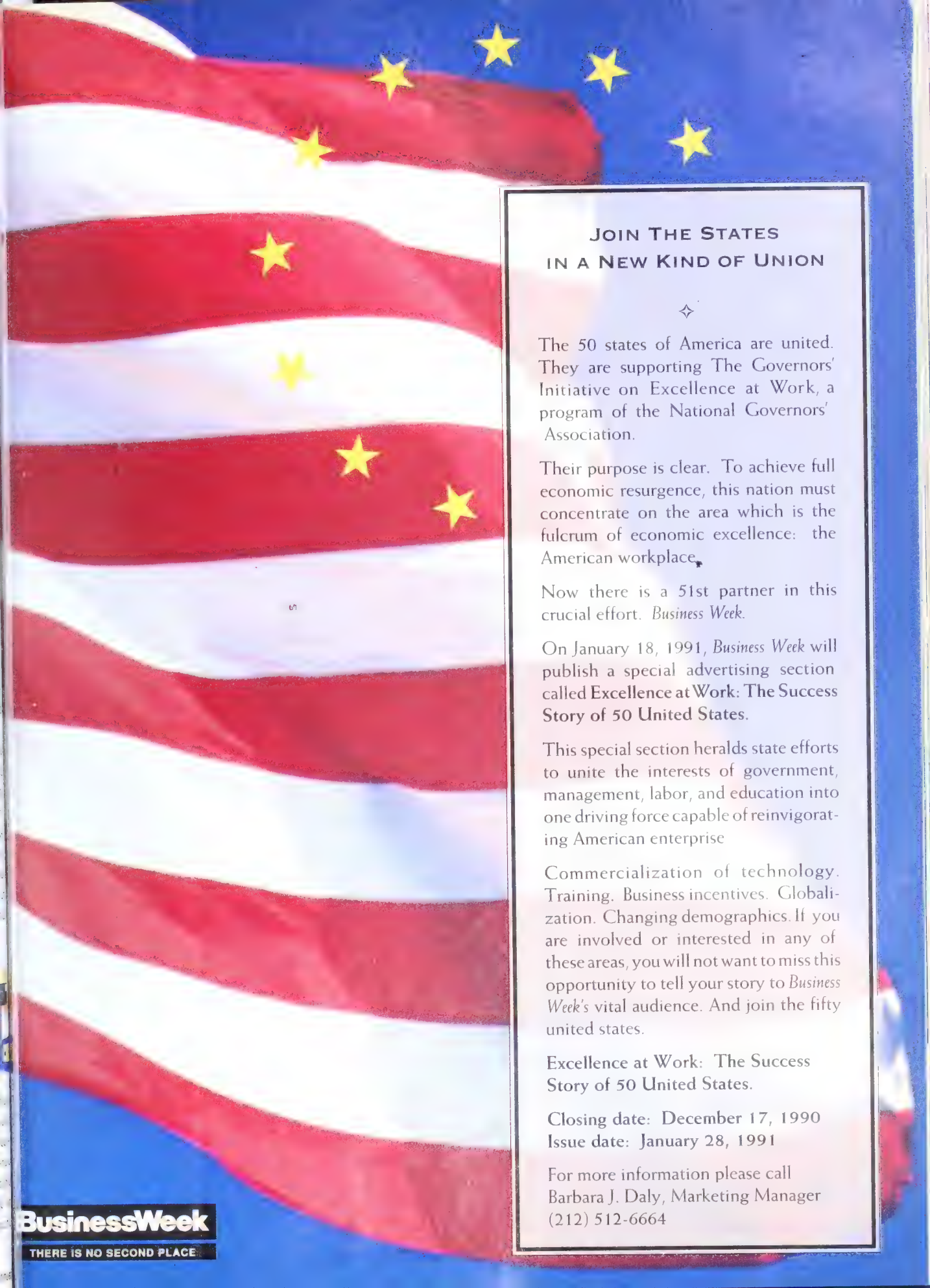

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STRATEGIES

JUST DON'T GET IN JOE GORMAN'S WAY

TRW's hard-charging chief is shaking the conglomerate to its core

When TRW Inc. Chairman Joseph T. Gorman received a prepublication copy of a book written by the company's top policy analyst, Pat Choate, detailing Japan's powerful lobbying influence in Washington, he wasn't pleased. He told Choate that the company disagreed with the book's premise and then fired the economist shortly before the publication of *Agents of Influence* this summer. Why? Choate says TRW feared that the book would offend its Japanese customers. Gorman says he objected to Choate's work on purely intellectual grounds: "He sensationalized the subject matter."

The confrontation was vintage Gorman. Since taking over as chairman two years ago, the feisty former corporate attorney, 53, has taken a hard line with strategies—and managers—that don't perform according to his expectations. He has brought a tough, bottom-line mentality to the auto-parts, defense, and credit-information conglomerate—something of a departure at TRW. Under former Chairman Ruben F. Mettler, an engineer who worked on one of the first U. S. ballistic missile projects, managers were told to take risks on new technology, even if there were no quick commercial payoffs. TRW prided itself on having helped develop the rocket engines that took astronauts to the moon, but it occasionally let its scientific zeal get in the way of financial performance.

SETBACKS. Now, Gorman is trying to pull the company back to earth. He wants TRW to do better at transforming its technological edge into stronger earnings growth. And he's willing to shake things up to do just that. On Oct. 26, he announced a major reorganization of his $3.2 billion automotive segment. Gorman is also leaning hard on his middle managers to make projected profits. "The world in which we compete has changed dramatically," says Gorman. "My No. 1 job is to change the culture of TRW in ways that will make it more successful."

He has his work cut out for him. With Detroit auto makers slumping and Pentagon spending on the wane, TRW's core auto-parts, defense, and space-electronics businesses—representing some 90% of operating earnings—face tough times ahead. Bateman Eichler, Hill Richards Inc., an equity research firm, figures TRW's net income will tumble 16% in 1990, to $222 million on sales of $8.1 billion. Small wonder, then, that its stock has shed about 34% of its value since January, compared with 15% for Standard & Poor's 500-stock index.

To win back investors' favor, TRW's board recently raised the company's quarterly dividend 5%. Knowing that there's more to be done, Gorman has vowed to dump businesses that don't deliver profits of at least 12% of total invested capital. TRW's once highly profitable computer-repair business was sold in late October, and Gorman is pruning other units. He's also reshuffling management. Under the reorganization, the auto business will be refashioned into three groups—steering systems, engine components, and air bags—all reporting directly to Gorman. As part of the shakeup, TRW's top automotive executive, Jerry K. Meyers, has announced his resignation, and others likely will follow.

BLOWN DEADLINE. Perhaps now Gorman can focus more effectively on what was supposed to be the rising star of the automotive business: air bags. They have been anything but. On Oct.

CEO GORMAN'S PLAN TO RETOOL TRW

- Target investment in businesses such as air bags, auto electronics, and credit reporting, where TRW can be a market leader
- Develop sophisticated and comprehensive auto, defense, and credit systems, making TRW indispensable to customers
- Hold managers' feet to the fire to make their growth projections
- Exit businesses where TRW cannot make a profit greater than 12% of total invested capital
- Foster a culture more attuned to containing costs and meeting the bottom line

Ford Motor Co. announced that it's recalling 55,000 1990 and 1991 model-year cars because of possible problems in air bags supplied by TRW. This is the second time TRW has disappointed Ford, which in 1987 tagged the company as its sole air-bag supplier. Earlier this year a chemical fire devastated a Canadian plant where TRW jointly produces air-bag propellant with ICI. The result: TRW

On your day off, you'll find Seoul has many interesting features.

Seoul is known as a great place for bargains, and Itaewon is one of the best places to find them. Seoul also has many other attractions. Walking tours and trips outside the city provide a look at Korean culture. So, if you're there on business, take time to see Seoul at more than face value.

Zone out.

At the 38th Parallel lies the Demilitarized Zone (DMZ). Once there, you can visit Panmunjom, site of the armistice that ended the Korean War. Don't miss the 240-foot-deep tunnel, cut into bedrock, that heads toward Seoul. For a full-day tour phone the Korea Travel Bureau (tel. 2-585-1191) two days before you want to go.

Visit the folks.

The Korean Folk Village, just outside Seoul, is a living museum in which potters, weavers, millers, blacksmiths and other craftsmen recreate the lifestyles of times past. The major hotels have information about day trips.

Standing tall.

Rising high above Seoul's skyline is the Daehan Life Insurance Building, or "Golden Tower," the tallest building in Asia. From its observation deck on the 60th floor you can see as far as North Korea. There are a variety of restaurants here too. For more information, call 789-5663/50.

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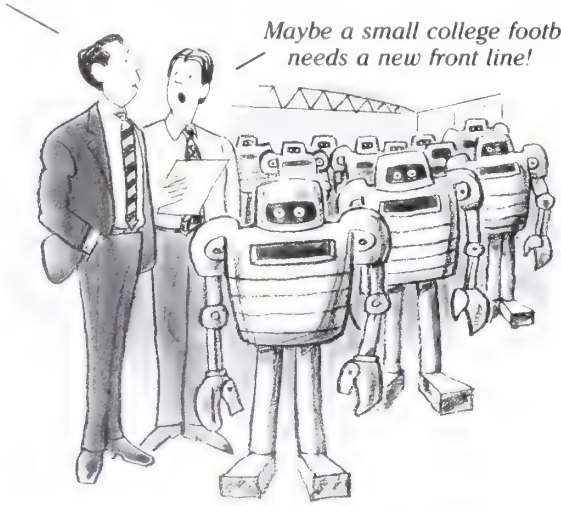

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missed a deadline to supply Ford with passenger-side air bags for its Lincoln Town Car and Continental 1990 models.

So far, the company has had headaches aplenty mass-producing the devices, given the volatile chemicals involved. The air bags rely on a controlled explosion of sodium azide and other chemicals. When a car crashes, an electronic sensor ignites these chemicals which burn violently and generate the hot gas needed to quickly inflate the bag. The trouble is that in a few cases the devices developed gas leaks that could burn passengers. In others, the bags inflated improperly.

TRW is also having to torque up its investment spending to keep pace with the unexpectedly high demand for air bags, now that General Motors and Chrysler plan to equip all cars and light trucks by 1995. TRW plans to spend $7.5 million to $1 billion on capital expenditures by the mid-1990s—a full 50% more than anticipated five years ago.

Already, Gorman has had to back off on his earlier promise that the air-bag business would be profitable by this year. Now, that isn't projected until 1991, owing to the plant fire in Ontario and the unexpected surge in demand. Says Mettler, TRW's former chairman and Gorman's predecessor: "If we had to do it all over again, we would do it a little smarter." At the same time, TRW faces stiffer competition from another air-bag maker, Morton International Inc.

DOWNSIZING. TRW has proved before that it can deal with adversity. By making some strategic adjustments, the company likely will avoid a severe downturn in its $3 billion defense business, despite a shrinkage of projects. Instead of manufacturing huge satellites aimed at the Soviet Union to detect nuclear missiles, TRW now is making smaller satellites that track regional troop movements.

And the company's auto-parts innovations have kept it a leader in power steering and valves—and bolster TRW's hopes for eventual success in air bags. Overseas, TRW has even managed to crack the auto market in Japan. In fact some admire the direction that Gorman brings to operations. "Before Joe, when TRW dealt with us, it acted like a bunch of separate companies," says Chrysler Motors President Robert A. Lutz. "Now there is a focus to act like one."

Gorman's campaign to make TRW more efficient and competitive isn't likely to subside soon. Says a middle manager of Gorman: "Joe has shaken things up more in the last two years than in the last twenty." With a little help from the economy, all those changes might just make for steadier profits.

By Stephen Phillips in Cleveland

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ENERGY

FEELING THE HEAT AT A FLORIDA UTILITY

A disastrous diversification and undercapacity are burning FPL

For most of the past five years, Wall Street was a fan of FPL Group Inc. A holding company for Florida Power & Light Co., the largest electric utility in a fast-growing state, FPL seemed to have the bases covered. Analysts liked its diversification program. The Miami-based utility had no big building projects planned, making it safe from fiascoes. An efficiency drive had streamlined power company operations. And last November, the utility won a new overseas version of the prestigious Deming Prize, a Japanese-sponsored quality award.

But now, FPL is short-circuiting. It has been trying since April to unload its diversification flagship, Colonial Penn Life Insurance Co., and analysts expect it to take a bath. On Oct. 24, in fact, FPL reported a third-quarter loss of $568.5 million, including $752 million in write-downs, mainly reflecting a 63% reduction in the carrier's book value plus higher reserves for future losses.

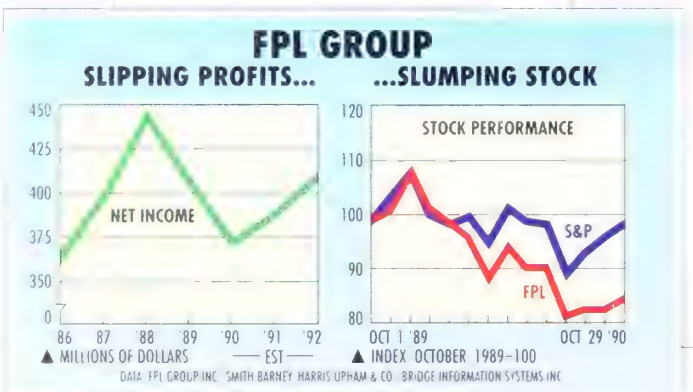
OFF-LINE. FPL Chairman James L. Broadhead says the write-downs put the issue of Colonial Penn's market worth to bed. "Now it's time to focus efforts on the utility," he adds. There's plenty to focus on. On Nov. 24, FPL Co. will start taking its 1,332-megawatt Turkey Point nuclear plant off-line to load fuel and install a backup generator. That will idle some 10% of its generating capacity for 11 months. Worse, the utility hasn't been adding much capacity, partly because of faulty demand projections. Now, FPL Co. is budgeting $6.6 billion to hike capacity by 5,400 megawatts, or 36%, by 1999. Such spending to build what Salomon Brothers Inc. analyst Gregory B. Enholm calls a small utility may hurt earnings and pummel FPL's stock. At 27¾, its shares are down 16.5% from a year ago, vs. a 3% falloff for the Standard & Poor's utilities index (chart).

No doubt, FPL wishes it hadn't spent $565 million on Colonial Penn in 1985. At the time, like many utilities, it had lots of cash. And then-Chairman Marshall McDonald, who retired in 1988, wasn't alone in seeing diversification as a wa to spread risk, boost earnings, and e cape regulation. "They could have p the money into more facilities," says A gus Research Corp. analyst Gary Hovi But if a recession chokes growth, "wh eats the cost of unused capacity? FPL.

TIGHT SQUEEZE. Unfortunately, sta projections that Florida's populatio growth would level off in the late 198 were wrong. The utility now says sur mer peak-load estimates for 1991 ar 1992 were too low, by 202 and 238 meg watts, respectively. And it expects d mand to keep rising. C. O. Woody, exe utive vice-president, says the problem no more daunting than what FPL C faced in the mid-1970s, when it adde seven facilities and 6,800 megawatt "We can do it again," he adds.

Even if that's true, it will be a tig squeeze. When Turkey Point closes, F Co. will have a mere 1,800-megawa cushion to handle peak demand this wi ter and next summer. That's about 13 of capacity—not much considering th the Florida Public Service Commissi (FPSC) recommends a minimum excess 15% in winter and 20% in summer. fact, when two plants failed in July, t utility had to ask customers to forsa air-conditioning to avoid brownouts.

Such emergencies are felt statewid Florida utilities share a gri and those with surplus pow sell to others facing a sho fall. So FPL Co.'s crun strains the whole syste Customers still smart ov the severe cold that led to r tating blackouts last Chri mas. Similar weather th year would "put us all in re trouble" says Joseph D. Je kins, the FPSC's electric-ut ties director.



If new blackouts do occur, Turkey 'oint will take much of the blame. Beset y equipment failures and poor mainteance, the twin Westinghouse reactors ear Miami have run at an average 49% f capacity since 1987. Since 1983, FPL o. has spent more than $700 million on lant repairs—and the new work will ost $235 million more.

To ease the pressure, FPL Co. agreed n Aug. 1 to buy a chunk of Southern o.'s 846-megawatt Scherer Unit Four lant near Atlanta. The $640 million eal, still awaiting FPSC approval, will ld 300 megawatts this year to the 2,000 ie utility now buys on a contract basis. ut that can't offset Turkey Point, so ie squeeze won't ease until the nuclear nits are back on-line in October, 1991, id until FPL Co. adds capacity. Its plans clude upgrading a Fort Lauderdale ant and erecting two new oil-and-coalred units near West Palm Beach. That ould add 1,098 megawatts from 1993 rough 1994. And FPL Co. wants an adtional 4,300 by 1999, when its customer ase is expected to have grown 33% om present levels, to 4.1 million.

CALED BACK. FPL's problems already 'e showing up on its bottom line. In 89, the company earned $410 million 1 revenues of $6.1 billion. Excluding ie one-time write-downs, says Edward Tirello of Smith Barney, Harris pham & Co., FPL's 1990 earnings will ill be down 9%, to $373.6 million. The mbers won't improve much soon: Tirlo sees profits inching up to about $387 illion in 1991 and $415 million in 1992. &P, Moody's Investors Service, and onaldson, Lufkin & Jenrette Securities orp. have all scaled back ratings on me of the utility's bonds.

The one thing investors are happy out is FPL's plan to dump Colonial enn. In 1985, the company predicted at by the year 2000 the Philadelphia rrier and other nonenergy businesses ould generate 15% of total profits. Not ite. FPL absorbed $72 million in writeowns in 1986—after Colonial Penn distntinued several unprofitable commerial lines. Those figures paled against ie recent $752 million write-down. Of at, $63 million was related to other nutility units, such as FPL's Telesat ble-television service. But $689 million as for Colonial Penn. Broadhead still ants to sell the insurer but doesn't exect to get much more than $200 million.

If FPL had spent its money instead on nservation programs and new capaci', critics charge, it might not have its rrent problems. "It was a waste of oney—just like Turkey Point," charges clear activist Thomas J. Saporito, a rmer Turkey Point worker. Right now, wever, the issue isn't money—it's getng through this winter.

By Antonio N. Fins in Miami

THE PENINSULA GROUP

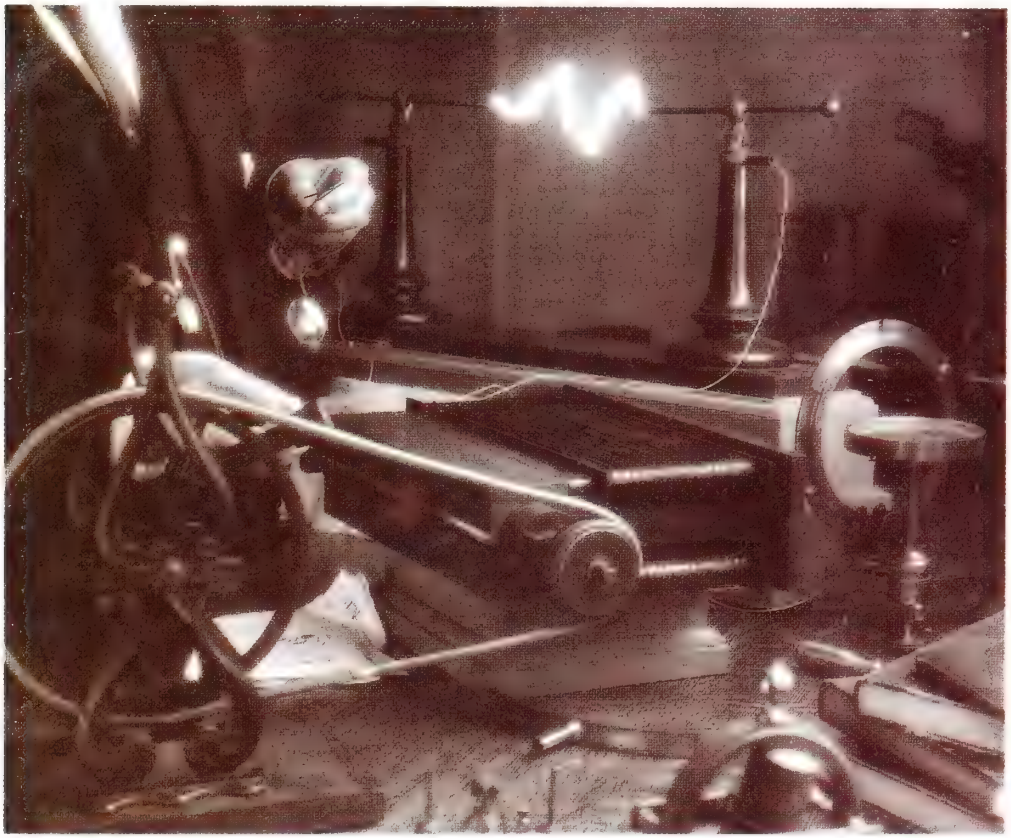
The One hotel group whose name is synonymous throughout the East with traditional standards of elegance, style and grace, now has a sparkling string of properties that stretches through the Pacific to the Atlantic.

The Peninsula, Hong Kong
The Kowloon Hotel, Hong Kong
The Manila Peninsula, Manila
The Palace Hotel, Beijing
The Peninsula, Bangkok (opening 1993)
The Peninsula, New York
The Peninsula, Beverly Hills (opening 1991)

THE PENINSULA GROUP

SIEMENS

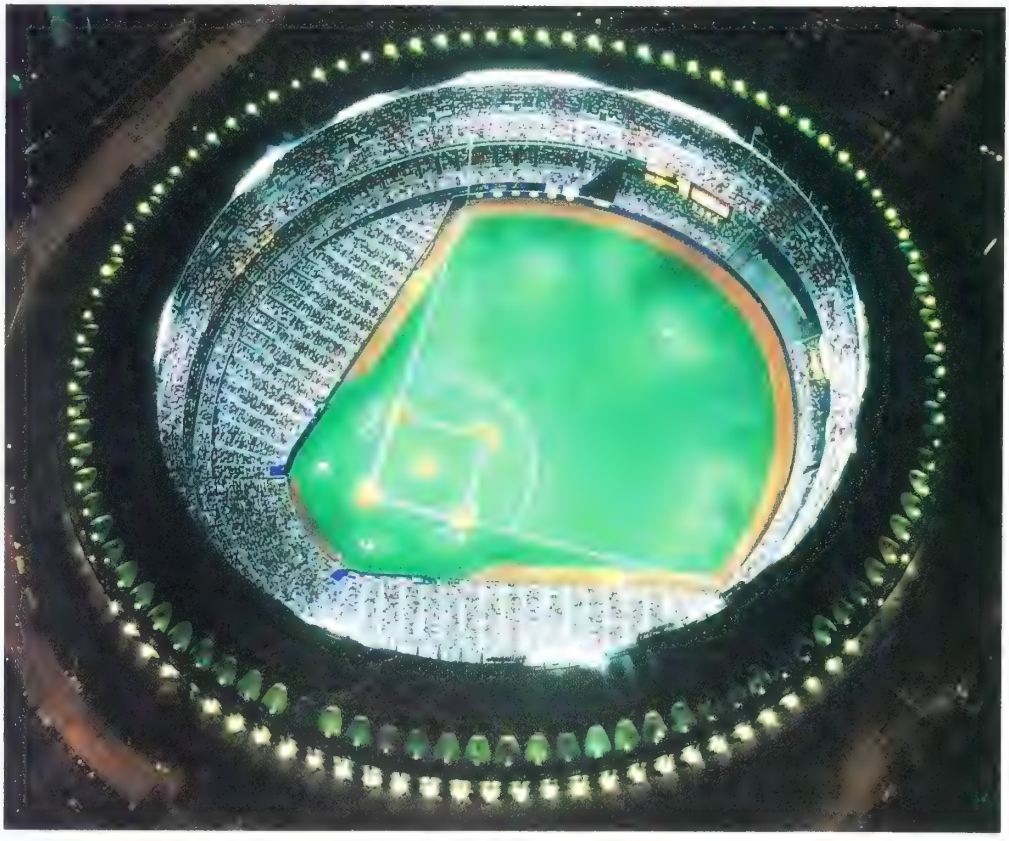
1866. That was then.



Shortly after his 50th birthday, Werner Siemens invented the world's first electric dynamo, and began the revolution that brought electric power to everyone, everywhere.

©. Siemens Corporation 1990

1990. This is now.



Today, Siemens technology generates, distributes and controls electric power in ways Werner Siemens never imagined. From the brightly lit stadiums where people cheer their favorite teams to the places where people work and live, Siemens technology is helping to produce and deliver electric energy wherever it is needed. It's all part of the heritage of innovation begun by Siemens over a century ago. And it's yet another way the 35,000 men and women of Siemens are working all across America to generate the kind of thinking that will lead us into the next century. **Siemens. Precision Thinking.**

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NICHES

THIS OCTANE-BOOSTER COULD USE SOME BOOSTERS ITSELF

Ethyl's additive has united Detroit and environmentalists against it

Ethyl Corp. is nothing if not persistent. The Richmond (Va.) chemicals maker first tried back in 1978 to persuade the Environmental Protection Agency to approve its HiTec 3000 fuel additive. Ethyl claimed its octane-booster would put a tiger in your tank. Yet the EPA rejected HiTec 3000, saying it might damage auto emission systems. Three years later, Ethyl tried again—but still no sale.

Now, armed with new studies about the additive's ability to cut pollution and save oil for the country, Ethyl is making a third attempt. This time, with a new clean-air law in place and trouble in the Persian Gulf, Ethyl hopes to convince the EPA that HiTec's day has arrived.

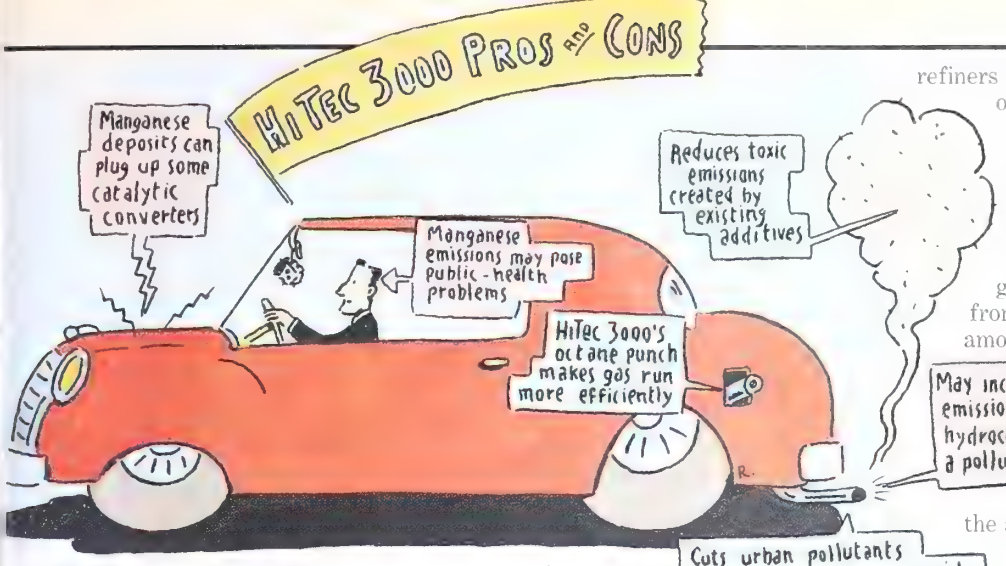
On Nov. 5, the EPA is expected to make its call. If HiTec gets the nod, it could add some oomph to the company's earnings and shore up its other chemical segments and insurance business should a recession hit. Used with existing additives, HiTec is already a $30 million market in Canada, and in the U. S., it could mean about $100 million annually in sales and a 10% uptick in earnings for the $2.4 billion specialty chemical maker. "We've got a very positive story to tell," says Gary L. Ter Haar, Ethyl's vice-president for health and environment.

Maybe so, but HiTec hasn't exactly wowed environmental groups and others, who believe more research is needed into its health effects. The National Institute of Environmental Health Sciences says HiTec 3000's use of manganese, a metal linked in some scientific studies to nervous system disorders, could pose a health risk. High levels of manganese can damage brain functions in a way similar to lead, which the feds began to phase down in the mid-1970s. "We can't let that genie out of the bottle again," warns Karen Florini, an attorney for the Environmental Defense Fund.

'PREMATURE.' They have been joined by the unlikeliest of allies: Detroit's auto makers. Ford Motor Co. and Chrysler Corp. say manganese deposits make catalytic converters less efficient. In Canada, Ford says, its return rate for catalytic converters under warranty is greater than in the U. S.

Ford has turned a gimlet eye on Ethyl's emission tests, too. Its gripes: The cars used should have been run at higher temperatures to simulate real-world use, and trucks should have been tested as well. Ford believes HiTec may actually slightly increase hydrocarbon emissions—a no-no under the new clean-air law. "We think an approval would be premature," says David L. Kulp, Ford's manager of fuel economy planning and compliance. In the meantime, the EPA and Ethyl are squabbling over recent agency tests about the level of soot-like

The new Canon E57 is simply a winner.



articulates that the additive puts out.

For its part, Ethyl has spent $5 million esting the effects of HiTec on emissions rom 48 cars—an unusually large num-er of test vehicles. It has also taken out ull-page ads in national publications, lagging the additive's benefits.

IAGIC DROP. Even so, HiTec 3000's fate ay turn on how well Ethyl can make he case that the product will help the uto and oil-refining industries make trides toward compliance with the new lean-air law. Company tests indicate hat the additive can slash auto emissions of nitrogen oxides, which contribute to urban smog, by 20% and carbon monoxide by 7%.

An added bonus: Vast potential energy savings. The additive enables refineries to reduce the amount of refining needed and to get more gasoline out of a barrel of crude oil. Overall, the U.S. could save 30 million barrels of oil annually if the additive were used nationwide. Also, Ethyl cites surveys indicating the additive could mean savings to refiners of up to two-thirds over other octane-boosting methods. "The economics are favorable," says William S. Dickinson, manager of engineering and technology at Los Angeles-based Arco.

As for health concerns, Ethyl argues that unlike lead, manganese is found in everything from tea to multivitamins, and the amounts of manganese coming out of the tailpipe would not even come close to those exposures. To the folks in Detroit, Ethyl says it has steadily reduced the amount of manganese in the additive over the years. Moreover, the company insists that key components of the catalytic converter are not harmed or plugged up by manganese deposits.

So now Ethyl is hoping the EPA will wave its scepter over HiTec 3000. That would help its chances of acceptance in two other potential markets, Australia and Europe. But even if the agency balks again, Ethyl and energy concerns will probably make sure that we haven't heard the last of HiTec 3000.

By Vicky Cahan in Washington

n fact, the E57 is so full of features, yet so fully automatic, it can turn y moment into winning video.
ts 10x power zoom lens gets you in close when you're far away. It mes with an attachable video light for beautiful color rendition while shooting in low light situations. The 180° FlexiGrip™ lets you use your imagination to catch action from hard-to-reach angles. And Canon's expert lens crafting means sharp, brilliant color images every time.
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"Nature's energy resources are undervalued assets in more ways than one."

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MEXICO: A NEW ECONOMIC ERA

THE RUSH TO FREE TRADE MAY CREATE A UNIFIED NORTH AMERICAN ECONOMY

ON THE BORDER: As free trade creates Mexican jobs, illegal immigration may slow

Three years ago, Stanley M. Cohen stared at the dilemma faced by thousands of family businesses in America. His Los Angeles pipe-fixture company was losing ground to foreign rivals, and Cohen, the president, couldn't see a future. Either he could move offshore to cut costs—or close up shop. So he shipped part of the operation to Tijuana, where workers are paid one-eighth of what their Los Angeles counterparts earn.

Last spring, Cohen went the whole route. He shipped his $11 million company down the coast and replaced his South Korean steel source with a Mexican one. Now, all that's left of Cohart Products Inc. in the U. S. is its San Diego headquarters. "We're very competitive now," says Cohen, who is mapping out a plan to sell his pipes in Mexico.

Cohen has plenty of company. Thousands of American producers, from job-shop pipemakers to such global giants as Eastman Kodak Co., are suddenly pouring into Mexico for low-cost labor. They are doing so because for the first time in a century, south of the border is starting to look like one of the world's best places to do business. With open markets, cheap labor, and a government that finally seems capable of delivering both political and economic security, Mexico plays one of the hottest hands in the international-development game.

Now, feeling confident after three years of dramatic reform, Mexico's leaders want to erase the 2,000-mile border with the U. S. and create a seamless economic plain. If they succeed, predicts Herminio Blanco, Mexico's chief trade negotiator, "the entire geography of industry in North America is going to change."

WAKE-UP CALL. American business didn't quite get this at first. Many thought Mexico's economic reform was a long-overdue attempt to improve the lot of Mexicans. And for a while it was. But the U. S. got its wake-up call last summer, when Washington and Mexico City announced plans to push ahead on a free-trade agreement. By initiating, championing, and accelerating the drive for a border-busting trade pact, Carlos

MAP BY LAURIE DAVIS/BW

Salinas de Gortari, Mexico's 42-year-old President, is making the biggest gamble of his career: He's betting that a free-trading Mexico, bordering the world's largest and richest market, will divert the river of money and technology that now is flowing into low-cost havens in Asia and Eastern Europe.

With the free-trade pact, Salinas is preparing to write a new page of North American history that would push two uneasy and often distrustful neighbors into a permanent embrace. Salinas and George Bush will meet in the northern Mexico city of Monterrey in late November to launch trade talks. If all goes well, they will be casting the two countries into a new order that will last well into the next century.

Salinas and his team of Ivy League-educated technocrats are spreading their vision of a new North American trading bloc stretching from Anchorage, Alaska, to Acapulco. The nearly $6 trillion manufacturing and consuming bloc of Mexico, the U. S., and Canada, they maintain, is fully the equivalent of the New Europe of 1992 and Japan's domain in East Asia (map, page 103).

YOUNG JAGUAR? Turning Mexico into a kind of Asian Tiger on the border may sound improbable, but Salinas' team says the country is no longer a simple assembly line. Its large, capable work force has one of the highest literacy rates in Latin America—87%. More and more, foreign companies such as Ford Motor Co. and Bayer are setting up training schools, even sending workers abroad—and then putting them at the controls of million-dollar machines. The upshot: high productivity combined with rock-bottom wages. Says Kodak Mexicana President Donald F. Spieler: "By 2000, I see Mexico as being a Korea but with an even wider industrial base."

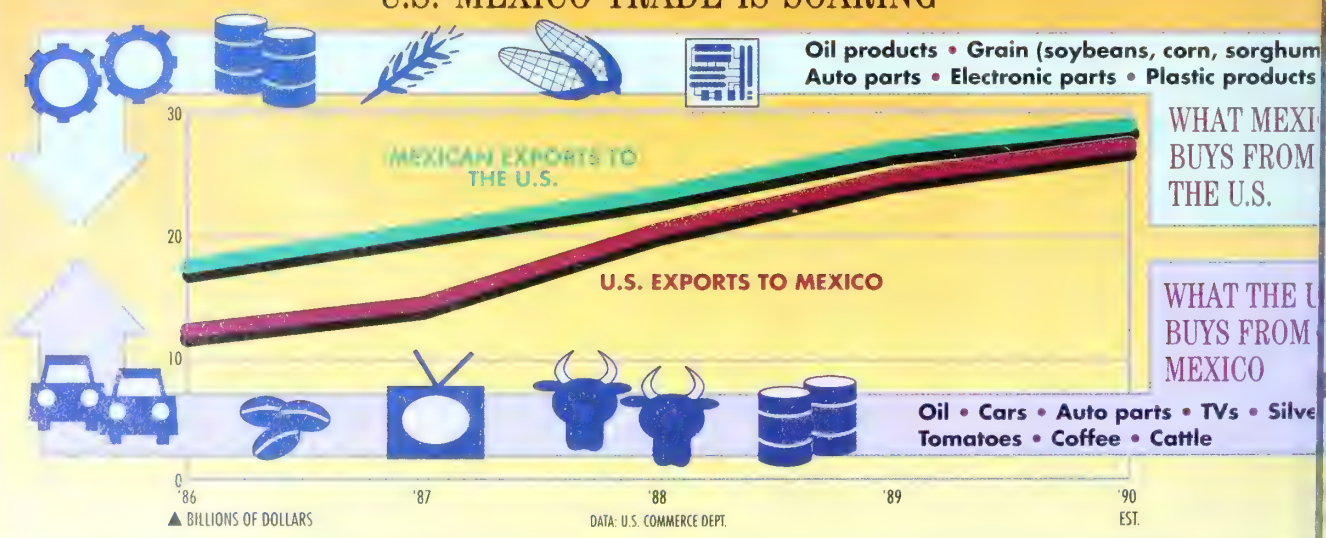
Free trade can also solve problems at home, say advocates. As new jobs crop up for Mexico's huge and growing work force, illegal immigration to the U. S. might slow. A richer Mexico would make for a more stable North America, with less risk of political upheaval south of the border, and provide a booming market for U. S. exports. In the past four years, U. S. trade with Mexico has tripled, to $60 billion, with Mexico importing nearly as much as Japan, and growth in the *maquiladora* plants along the border is exploding (charts). "We are entering a new stage of industrialization," says Salinas, who sees his task now as raising his people's standard of living without erasing his nation's competitive labor edge.

Still, there's a quixotic side to this quest. Never before has a developing country with a booming population and miserable wage scale entered into free trade with a leading industrial power. Shiny new plants in Mexico's north may meet world standards, but much of the country still bears the ravages of decades of neglect, evident in ruined roads, an impossible phone system, foul water, and a quarter of the population living in poverty—from parched farm plots to the cardboard slums that ring the cities. While it nurtures a manufacturing boom, Mexico's challenge is also to bring this sprawling underclass into the mainstream.

JOB EXODUS. North of the border, an equally wrenching shift is under way, and with it will come a new shakeout of winners and losers in North American industry. Watching jobs flee to low-wage countries is nothing new to Ameri-

CAULIFLOWER CUTTERS Mexicans are eager to ope markets to more of their fruits, vegetables, and processed f California avocado growers already worry about the compe

U.S.-MEXICO TRADE IS SOARING



NSIVE LABOR Using imported parts, Sanyo assembles :rators for export at this Tijuana *maquiladora*. The Japanese cheting up their border operations as free trade nears

BEYOND THE 'MAQUILADORA' Kodak's Monterrey plant makes parts for cameras. Foreign-owned factories that are more than just 'screwdriver' shops will multiply under free trade

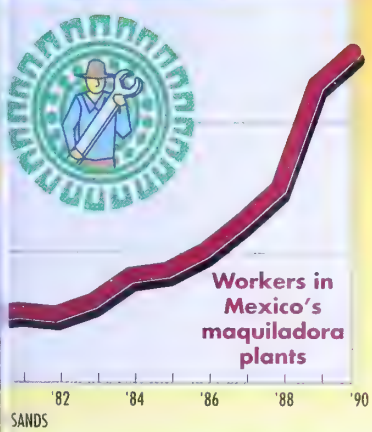
ans. But now, just as Mexico is ready to ake a grab for higher-paying jobs, re-ession is threatening the U. S. A mas-ive exodus of more capital and jobs outh is certain to spark a continentwide ob battle (page 112). The fireworks in Vashington are expected to begin next pring, when Congress starts to debate ree trade in earnest.

However heated tempers get in Wash-ıgton, a free-trade accord will in many ays simply codify what is already tak-ıg place. If you travel the 2,000-mile pan of the U. S.-Mexico border from San Diego to Brownsville, Tex., you'll find North American integration has arrived. Over the past 25 years, U. S. companies, along with a smattering of Japanese and Europeans, have opened more than 1,500 assembly plants near the border. The *maquiladoras* employ half a million Mexicans, paying them an average of $5 a day with a free lunch. U. S. and other foreign companies send south $12 billion in parts, and Mexicans assemble them into G. I. Joes, TVs, and hundreds of parts for Detroit's cars.

Border bridges groan under 24-hour streams of truck traffic. Ciudad Juárez and Tijuana are exploding with growth—so fast that there are chronic housing shortages. Warehouse moguls make a killing in El Paso, while investment bankers in San Diego shop across the country for Rust Belt companies to buy and transplant to Mexico. "If 30% of their costs are labor, either they find us or we find them," says Scott Hutchinson, of Ventana, a San Diego financial services company.

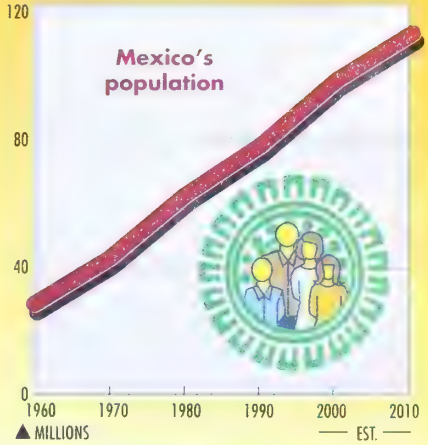
But for all their dynamism, *maquiladoras* are little more than foreign en-

THE BORDER IS URSTING WITH JOBS



WAGES ARE ROCK BOTTOM

LABOR IS PLENTIFUL



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What's right w

You won't see very many Accord Coupes that look like this one. There is no question about that. Unless, of course, you happen to work at Honda's factory located in Marysville, Ohio. Or live in Japan.

Carefully built and assembled at one of the automotive industry's most advanced manufacturing facilities, the Accord Coupe is made only in America But that's not the only place it's sold.

Thousands of new Accord Coupe are exported to Japan each and ever year. Where they are prized for thei engineering, craftsmanship and value Just as they are here.

But the other reason the Japanes are fond of this car is because it come

h this picture?

with right-hand drive. Which is fitting since they drive on the opposite side of the road in Japan.

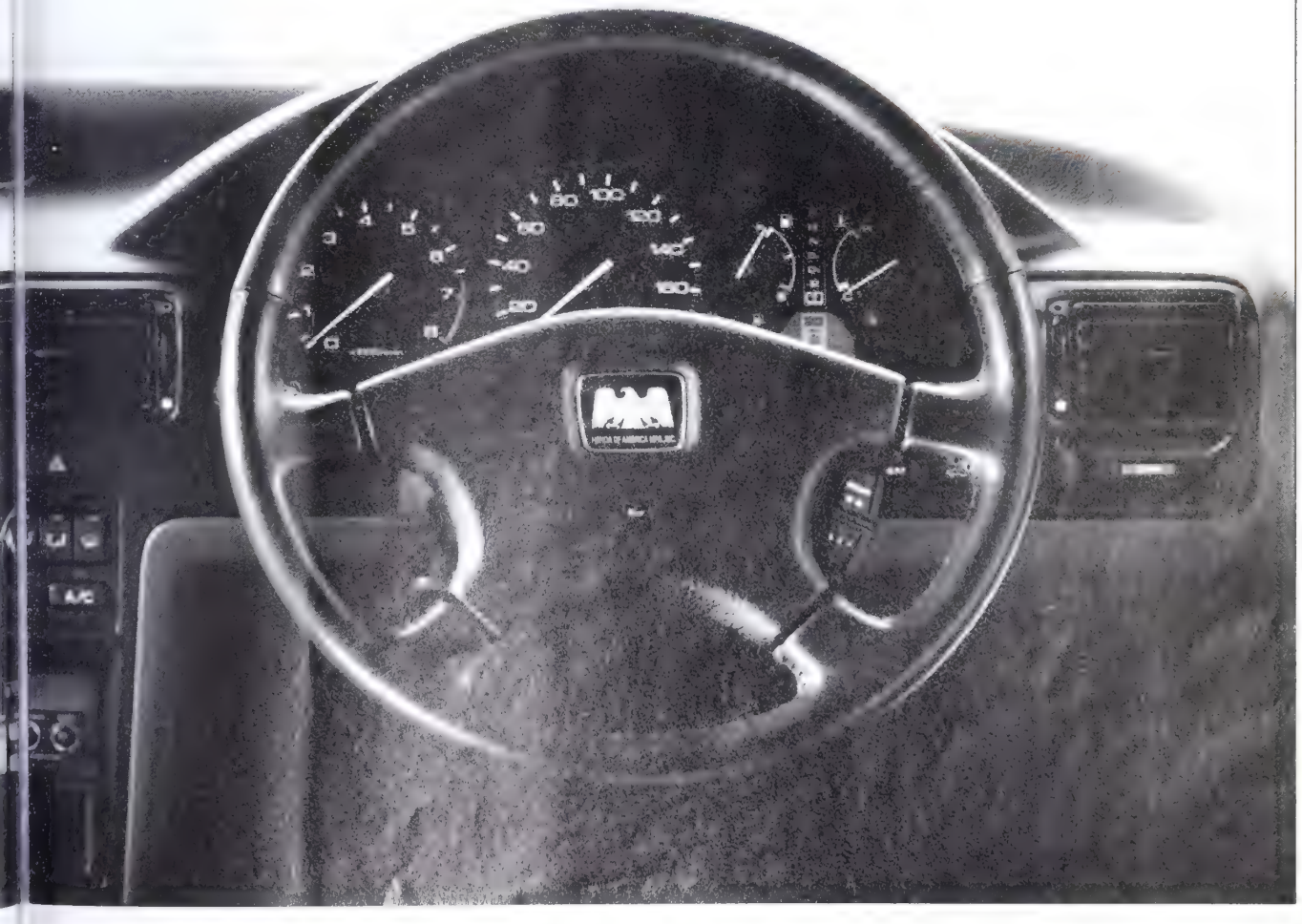
Mind you, producing both right-hand and left-hand drive cars from the same assembly line takes a lot of extra effort. The fact that Honda is the only U.S. carmaker to do so speaks for itself.

It's this kind of innovation and true commitment to people's needs which makes Honda, well, Honda.

Because even though we sell more Accord Coupes in America, it's just as important to satisfy our customers in other parts of the world.

After all, when you look at the big picture, that's what it's all about.

HONDA



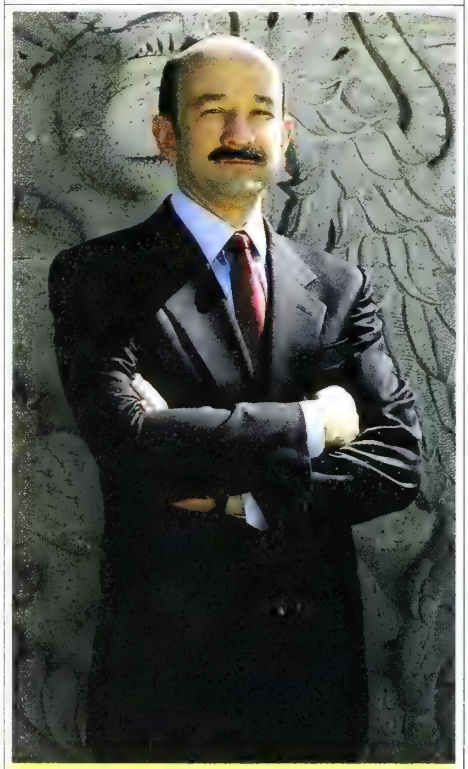
claves on Mexican soil. The plants buy 97% of their parts from the U. S. and sell next to nothing inside Mexico. Free trade would change that, transforming *maquiladoras* from simple "screwdriver" plants to regional companies that would buy and sell on both sides of the border. "We won't even be using the word *maquiladora* in 10 years," says Jaime Bermúdez, a pioneer of the industry in Juárez. The next step, say free-trade promoters, would be to make parts deep in Mexico and ship them hundreds of miles to the border. It's already happening with some companies, such as Kodak, which makes camera parts in Monterrey. Says Donald A. Michie, professor at the University of Texas at El Paso: "GE, GM, and Packard Electric should tell their suppliers to get their buns down here."

DYNAMIC LEADERSHIP. At the center of this drama is the diminutive Salinas, who by law has only four years left in office to complete his country's astounding economic transformation. Salinas has already made Mexico one of Latin America's two most open nations: The other is Chile. The Harvard-trained economist has cut back an army of bureaucrats, weaned his country from dependence on oil, and placed dozens of state-owned behemoths, including Teléfonos de México, on the block. In 1989, he liberalized foreign investment rules and renegotiated Mexico's $100 billion foreign debt without a hitch. Still, no avalanche of investment poured in. To his dismay, Salinas found his sprint was still too slow for the fast-moving events in Europe after the Berlin Wall fell.

Only after a whirlwind tour of Europe's capitals early this year did Salinas see how fast he would have to run, say insiders. If Mexico was to compete for the ever-scarcer aid and investment now drawn to Eastern Europe, Salinas would have to go all the way. Shortly after his return, he dropped two bombshells. He would privatize commercial banks. Then, he announced, long-isolated Mexico would say yes to free trade.

Although a free-trade pact is at best several years away, some U. S. companies are already putting down roots deep inside Mexico and thinking well beyond the screwdriver mentality of the *maquiladora*. Guadalajara, 950 miles south of El Paso, for example, is becoming Mexico's Silicon Valley. Moving away from the *maquiladora* setup, IBM, Hewlett-Packard, Wang, and others are making computers there for domestic and export markets. And suppliers are following. Alabama-based computer parts maker SCI set up a Guadalajara plant to supply IBM, investing $6 million in high-tech machinery and training high school dropouts to operate it. SCI has now found other customers in Guadalajara and is beginning to export.

Mexico's thriving auto industry is even better poised to take the country into a new stage of industrialization. The big carmakers have been using eager Mexican workers, who pull in $2.50 an hour, to piece together cars and components. Now, they're charging into more sophisticated operations. Ford has spent nearly $1 billion on its export facility in Hermosillo, where it produces Mercury Tracers for the U. S. Nissan Mexicana is investing $1 billion in a new car plant in Aguascalientes, and nine of its Japanese suppliers are following. Many of the automobiles will be shipped straight back to Japan.



CRUSADER SALINAS Mexico's President and George Bush will meet in late November to launch trade talks

BEETLE MANIA. Meanwhile, Volkswagen, with its sole U. S. plant shuttered, has shifted its entire North American production to Puebla, east of the capital. VW even hopes to resuscitate exports of the venerable Beetle, shipping them to Central America. "We're going to see investment pouring in here," predicts Nicholas V. Scheele, president of Ford's Mexican unit. "The dollar numbers are going to make people's heads spin."

Japanese companies, with 65 *maquiladoras* along the border, are quietly ratcheting up operations as the new North America looms large. In Juárez, junio high school dropouts employed by Seiko Epson Corp., the Japanese watchmaker operate $100,000 machines to make plas tic eyeglass lenses. Although technically a *maquiladora*, "we're really a chemica plant," says manager Hiroo Sakami. H points to the soccer field next door an says: "We'll have another plant ou there by next year." While most Japa nese companies are playing it safe wit border-based *maquiladora* manufactur ing, they are likely to flood farthe south in the wake of a free-trade deal.

Japan's already impressive positio gives pause to even the Bush Adminis tration's free-trade ideologues. Th Bush-ites want guarantees that Asia and European rivals in textiles, stee and computers, for example, won't bom bard the U. S. market from bases i Mexico. One way to ensure that is t establish tough rules of origin. Product enjoying Mexico's easy access woul have to be made largely of North Amer can parts. Those with high Asian or Eu ropean content would face U. S. impor duties. American trade experts also sa a pact must provide legal protection fo U. S. patents and technology south o the border. And they want to wipe ou the remaining constitutional restriction on foreign investment in Mexico.

MEXICAN CRUDE. Another touchy issue oil. The U. S. wants Mexico to open u its undercapitalized oil industry to Ame ican investment—which is prohibited b the Mexican constitution. Mexican off cials insist that oil is not on the tabl and Salinas vows the constitution won be amended. But private analysts Mexico say that oil is a bargaining chi Says Rogelio Ramírez de la O, direct of Ecanal, an economic consulting firm "Eventually, Pemex has to go on th market." For the U. S. industry, an ope ing would stretch the oil patch sout bringing exploration and developme contracts. And faster flows of Mexica crude could lessen dependence on Mi east suppliers.

Mexicans, meanwhile, are eager tear down U. S. quotas on textiles an steel and to open U. S. markets to cu rently prohibited fruits and vegetable Mexico grows more avocados than an country in the world, for example, b sells none in the U. S., thanks to prote tive rules favoring California growe and allegations that Mexican avocad are infested with worms. The comi California avocado war is likely to replayed dozens of times as industri with strong lobbies, such as textiles an cement, fight to protect their turf. U raveling these import restrictions cou take as long as a decade.

But as he heads into talks, Salinas c

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count on strong support from Bush and the two Texans in the Cabinet: Commerce Secretary Robert A. Mosbacher and Secretary of State James A. Baker III. Aside from their ideological sympathy with free trade, the Texans are said to be fond of the Salinas crowd. Mosbacher and Jaime Serra Puche, his Mexican counterpart, hunt quail together. "There is a deep personal commitment driving this [free-trade agreement]," says an Administration official.

At the same time, Mexico's political future is shrouded in mystery. For the moment, Salinas sits firmly on top of Mexican politics. His opposition is divided, and the once-powerful union leaders have been dispatched to the political tar pits. Despite widespread skepticism about Salinas' continental gambit and Mexico's role as a source of cheap labor, only an economic collapse would galvanize a viable opposition. That's why Salinas' ability to push forward a like-minded successor in 1994 rests on the success of free trade. If an accord founders in the U. S. and Mexico's economy stalls, the presidency could be up for grabs.

STAYING IN SCHOOL The literacy rate of Mexican workers is 87%, high for a developing country

But that won't be the case with an increasingly independent Congress. Mexican sensitivity to insult is always near the surface, and if Congress sought to inflame it with televised hearings on election fraud or police torture south of the border, it's likely the anti-*yanqui* fury would itself be enough to force Salinas away from the table. "That's his nightmare scenario," says Mexican commentator Jorge G. Castañeda, a frequent critic of the youthful President.

'VOLATILE ECONOMY.' Investors also worry that Salinas could trip over the economy on his way to free trade. Inflation, which dropped below 20% last year, is back up to a 27% annual rate now. With congressional elections next year and oil revenues riding the Iraq bonanza, investors fear the government will pump more money into the economy, undermining its anti-inflation pact. Says Marcelo Canales Clariond, finance director of Grupo Imsa, a Monterrey steel company: "Mexico continues to be a risky, volatile economy."

Politics, though, aren't dampening the spirits of Mexico City's wheeling-and-dealing business elite. From boardrooms on the border to the posh restaurants in downtown Mexico City, they're drawing up plans for free trade. Big companies are buying and selling smaller companies, hunting for niches in the coming market. Corporación Industrial Sanluis, for example, was originally a mining company sold to Mexicans by the Hearst publishing family 10 years ago. With free trade in the offing, the Mexican owners have swerved into manufacturing. Two years ago, they bought auto parts maker Rassini from the government. Rassini buys technology from Japan's NHK Spring Co. and competes head-to-head in the U. S. with Eaton's plant in Windsor, Ont. Its exports are up to $100 million. Meantime, Sanluis bought the Hyatt hotels in Mexico. The company's philosophy? Says Chief Exe utive Officer Carlos Madrazo: "Ever thing we do generates dollars."

International investors are also vyin for chunks of some of Mexico's bigge public companies. The sale of the tel phone monopoly is the world's fourt largest privatization and has set off bidding war among investors from thre continents. Major names such as Amer ca West, Nynex, Bell Canada, and Tel fónica Española are lining up Mexica partners for the bid and th prospect of big supply co tracts. The winner will be a nounced next month. Foreig banks, too, are sniffin around for minority shares Mexico's big three: Banamex Bancomer, and Banca Serfín

EGGS AND SALSA. What more, there could be a scram ble to reach Mexico's largel untapped consumers. Hig growth in the 1950s and 1960 gave birth to an educate middle class, but the cou try's trade barriers created huge pent-up demand for im ports. Ever since tariffs tum bled after Mexico joined th General Agreement on Ta iffs & Trade in 1986, the Mex ican middle class has been o a consumer binge for U. S products, sweeping in import of Pampers and Miller bee Trade pact boosters no claim this demand for th small stuff will spill over int big-ticket purchases of car refrigerators, and washin machines. In Mexico City, says Jame W. Maxfield, president of El Paso-base Mantor Electronics Inc., you can reac 20 million people with a single TV signa

Mexico's import splurge is, of course transitory, if only because the trade pac will encourage American companies t make more finished goods in Mexico But blending cultures and economies is long-term proposition. The little things such as Mexicans spreading peanut but ter on tortillas and Americans spooning salsa on their eggs, are growing into bi ones, evident in the number of bilingua schools already flourishing on both side of the border. Legitimate America fears of losing jobs and Mexican phobia about becoming the 51st state remai large obstacles. But the continental shif under way is already etching a new com mercial trademark for the world: Mad in North America.

By Stephen Baker in Mexico City, wit Elizabeth Weiner in New York and Am Borrus in Washington

Continued on page 11

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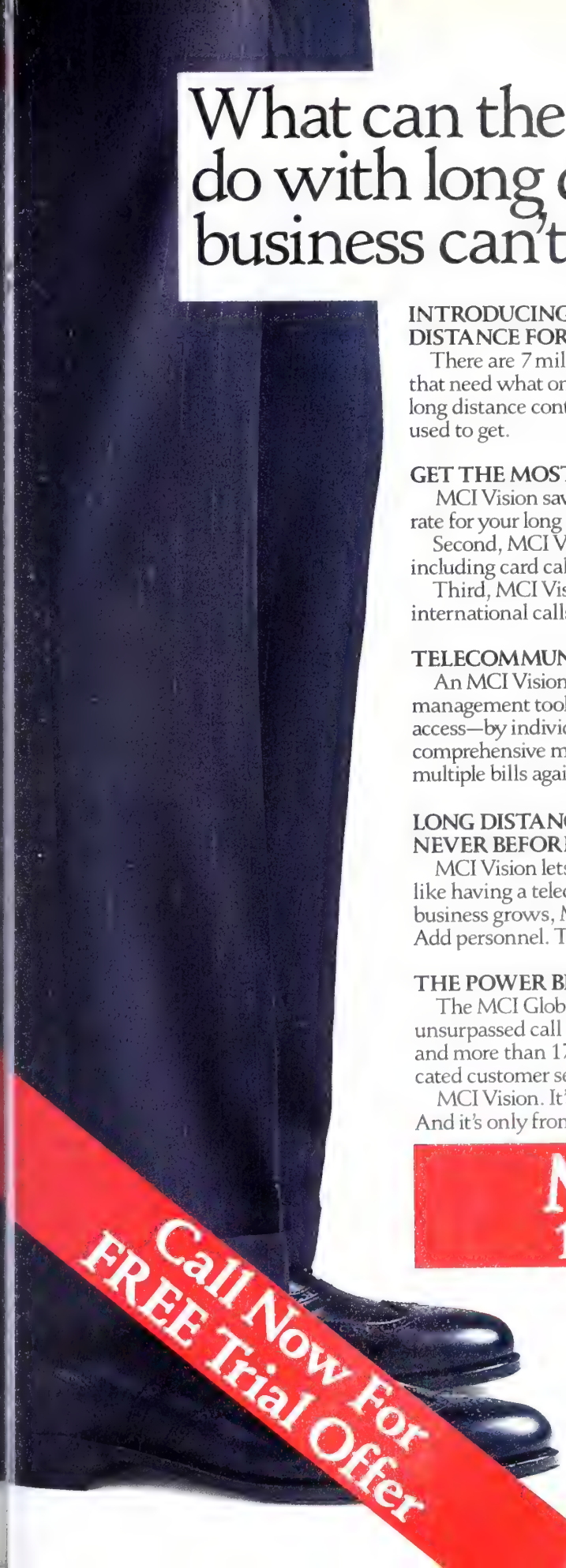

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IS FREE TRADE WITH MEXICO GOOD OR BAD FOR THE U.S.?

Jobs will be lost in the industrial heartland, but America will also reap some sizable benefits

OUT OF THE PICTURE? Midwestern factory workers worry that their jobs may migrate south in great numbers

Dianna Forster, 27, an unemployed mother, doesn't think highly of U.S.-Mexico free trade. She lost her job last summer, when Jerrold Electronics, a unit of General Instrument Corp., closed its plant in Kansas City, Mo., throwing 190 workers out of $9-an-hour jobs. Now workers in Matamoros, Mexico, are doing the same repair work on cable-TV converters for about $1 an hour. Forster thinks other Americans will suffer the same fate if free trade is approved. "It's not only a threat to us, it's a threat to Mexican workers," she says. "They're being exploited as much as we were."

But in Warren, Ohio, some workers at Packard Electric Div. of General Motors Corp. believe the Mexican connection is vital. Employment in Warren has declined from 13,500 to 8,400 since 1973 as Packard has built up its operations in Mexico to 20,000 employees. Workers in Ohio now concentrate on building switches and couplings, which the Mexicans assemble into electrical systems for cars and trucks. Because of low-cost Mexican labor, job erosion in Warren has been slowed. "Without the Mexicans, we wouldn't be here today," says John D. Rock, a local union official.

That tale of two cities speaks volumes about what's at stake for America's industrial heartland as the Bush Administration pushes for free trade with Mexico. Having suffered a brutal economic shakeout in the early 1980s, the Midwest regained a measure of job stability by 1990. But now, free trade with Mexico will almost certainly benefit white-collar and technical jobs at the expense of blue-collar ones and will shift some economic activity not only to Mexico but to the Southwest Sunbelt as well. Politicians, labor leaders, educators, and even members of the clergy are just beginning to grapple with the implications. "Nobody expected this thing to move very quickly, and all of a sudden here it is, coming like a bullet train," says Robert M. Stern, an economist at the University of Michigan.

RAPID SHIFT. What's clear is that a free trade pact with Mexico would spark a second wave of U. S. investment in Mexico, beyond the *maquiladoras* clustered along the border. Dozens of major manufacturers, including auto, electronics and appliance makers, already have moved some assembly of components to the border region, and Ford Motor Co

d Chrysler Corp. even assemble complete vehicles there. Now the trend is ward more engine plants and complete pplier bases.

In electronics, Thomson Consumer ectronics already employs some 5,500 exican workers. But now it is considerg moving production of its 20-inch teleion sets to Mexico from Bloomington, d., where it has 2,000 unionized works. The U. S. appliance industry also is ginning to make bigger commitments full-fledged manufacturing. General ectric Co., for example, has invested 00 million in a joint venture to make s ranges south of the border.

A free-trade accord would create a w wave of investment—and of lost S. jobs—because it would set up a ychology of permanence that goes bend the here-today, gone-tomorrow entality of a *maquiladora*. This new vestment climate appears more and ore irreversible. A free-trade agreeent would also open up the Mexican arket and encourage North Americade, full production.

ONOMY CARS. Under this emerging odel, companies already are making ecialized products and some high-tech ms in Canada and producing big-volne items of many different technology vels in the U. S. At the same time, they e concentrating mostly on labor-intenve operations in Mexico. Such products economy cars and appliances will be sembled in Mexico because these prodts are where margins are tightest and mpetition fiercest. By concentrating e manufacturing of certain products in e location, companies generate econoies of scale that give them world-class mpetitive power.

The U. S.-Canadian Free Trade Agreeent, which took effect on Jan. 1, 1989, reshadowed this change. Because the S. and Canadian economies are simir and have labor costs that are roughly ike, only a modest shift in production as resulted so far, as such giants as GE, R Nabisco, Goodyear, and others have ainly streamlined their U. S.-Canadian erations. But with Mexico, "production of entire commodities will be reorganized to take advantage of cheap Mexan labor," says economist Mordechai . Kreinin of Michigan State University.

In the industrial Midwest, where manfacturing accounts for 30% of employent, compared with 16% nationwide, e fallout could be staggering. Cities ch as Muskegon, Mich., which still has ousands of workers cranking out such sic auto parts as piston rings, seem lnerable—just as they were in the ear- 1980s, when 20% of the city's work rce was out on the street.

A renewal of those pressures would oduce many bitter local fights. The osing of General Instrument's Kansas City unit, for example, helped spawn the creation of a coalition called the Religion & Labor Council of Kansas City that is part of a grass-roots "industrial retention" movement. The Kansas City organization is one of 25 such local bodies affiliated with the Chicago-based Federation for Industrial Retention & Renewal. The group is building for a fight against free trade with Mexico, preferring instead "fair trade" that preserves economic security for Americans while forcing U. S. companies to pay more to Mexican workers. "Communities and standards of living and whole value systems are at stake," says Executive Director James B. Benn.

The problem for proponents of free trade is that the benefits of an accord are less tangible than plant closings. Executives at such companies as Navistar International, Allied-Signal, and General Instrument argue that their Mexican operations have prevented some Midwest jobs from being "exported" to Asia. Navistar, for example, has purchased an 8% stake in Mexico's biggest truckmaker, Dina, and that has created new work for employees of a Springfield (Ohio) sheet-metal plant and for technicians based in Fort Wayne, Ind. Likewise, John W. Day, president of Allied-Signal's automotive-parts unit in Southfield, Mich., says his company's four auto-related *maquiladoras* saved jobs that otherwise "would have gone offshore entirely."

Other benefits of free trade are undeniable. If barriers are lifted, trade and investment would expand, stimulating growth in the U. S. Mexican demand for machinery and transportation equipment would climb. A free-trade pact might boost research and development at companies headquartered in the Midwest but operating factories in Mexico. Services, including banking, architecture, insurance, telecommunications, legal, and engineering, would also get a boost.

But many of those gains appear to be showing up in the Southwest. San Diego is abuzz with financiers spinning deals in Mexico and is landing many white-collar jobs that the rest of the country is losing. Texans in San Antonio, El Paso, Houston, and Dallas are bracing for a bonanza from free trade, not only in white-collar jobs but from relocated parts suppliers.

'SOUTHERN STRATEGY.' Because of the variegated impact, the fight for free-trade approval in Congress could be much more heated than it seems now, particularly if a U. S. recession materializes. Aside from lost jobs, a deal with Mexico also would bring new pressure on manufacturing wages in the U. S., which the United Auto Workers union argues have fallen in real terms since 1979. Mexican free trade "is an extension of the southern strategy" to move manufacturing to the low-wage, nonunion Sunbelt, argues Steve Beckman, a UAW economist in Washington.

Congress, too, is aware that there will be winners and losers. "Congress should not rush into a free-trade agreement with Mexico unless it has its eyes fully open and knows what the ramifications might be," says Representative Don J. Pease (D-Ohio), a member of the House Ways & Means Committee. "I don't think there's any way that our folks can compete with $1-an-hour Mexican workers," says Pease, who hails from Lorain, Ohio.

That promises fireworks in the spring. The Administration will focus on the positive impact of free trade, and U. S. officials already are pointing to success stories, such as Navistar, where jobs have been sustained. But even if the Administration wins approval for an agreement with Mexico, it is likely to face a welter of issues, such as job security, worker rights, strengthened plant-closing laws, and perhaps even a stretched-out period for phasing in the pact. As the border blurs and the possibilities of free trade begin to look enormous, so, too, will grow the fears of new hardship and dislocations in the heartland.

By William J. Holstein in New York, David Woodruff in Detroit, Amy Borrus in Washington, and bureau reports

ADDING UP MEXICAN FREE TRADE

U. S. BENEFITS

1. Companies, particularly large ones, get better access to cheaper labor, parts

2. Better access to a growing export market

3. 100% ownership of Mexican subsidiaries and stakes in Mexican assets

4. Financial and service-sector companies expand

5. More reliable source of petroleum

6. Mexican political stability enhanced

U. S. COSTS

1. Jobs lost in certain industries

2. Painful restructuring of others, such as agriculture

3. Downward pressure on U.S. wages

4. Organized labor is hurt

5. Smaller and midsize companies feel new competition

6. Uneven impact: Texas may benefit more than Illinois

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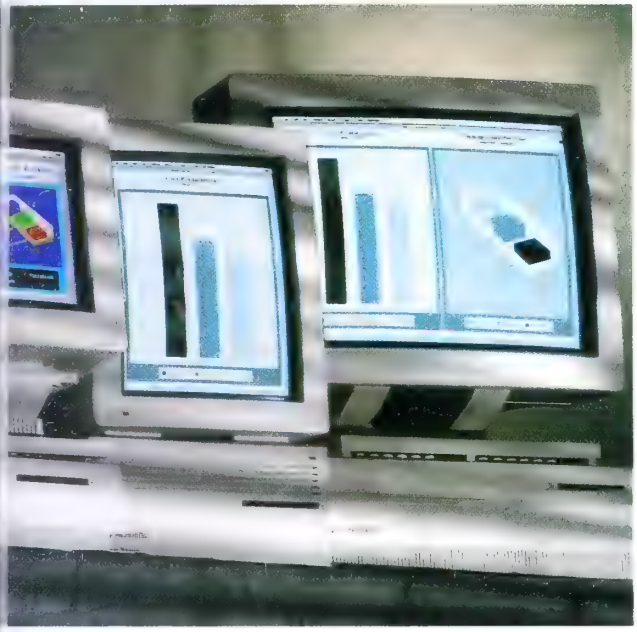

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REED HAS RESISTED CALLS TO SLASH CITI'S DIVIDEND: "OUR CREDIBILITY WITH THE STREET HAS TO BE BASED ON REALITY, NOT GRAND GESTURES"

CAN JOHN REED ROCK CITICORP OUT OF ITS RUT?

Bad loans, thin reserves, and a worried Wall Street are leaving him a lot less room to maneuver

Back in 1984, John S. Reed was something of a visionary. Then, the newly named chairman and chief executive officer of Citicorp had already pioneered the bank's drive into the lucrative consumer business, laid the groundwork for a nationwide credit-card business, and seemed well on his way to building a bank that would serve customers not only coast-to-coast but around the globe.

Six years later, the bank is struggling to save its grand strategy. And Reed, 51, is losing his mantle as the wunderkind of U. S. banking. As bad loans mount, Citi's reserves look perilously thin and its capital skimpy. Its share price, at 30 two years after Reed took over, is down to 11¼. Most disturbing, investors are questioning the creditworthiness of the nation's largest bank.

The turmoil at Citi is forcing Reed to put some plans on hold. With earnings squeezed, he can no longer afford big acquisitions to further his consumer franchise. The bank, for example, admits that it would be hard pressed to pick up MNC Financial Services Inc.'s 12 million credit cards (page 118). Reed is reviewing existing businesses with a view to selling off or closing down poor performers. Staff cutbacks are already under way, and by the end of 1991, Citi will trim its payroll by at least 2,000.

Reed is considering ways of raising capital that would have been unthinkable six years ago. One possibility: a foreign or domestic investor willing to take a significant equity stake in Citicorp. Reed acknowledges that a number have come forward, but he emphasizes that there is no firm deal pending. Moreover, he is reluctant to issue more stock that would end up diluting existing shares. "It's not impossible. But it surely isn't easy," he says.

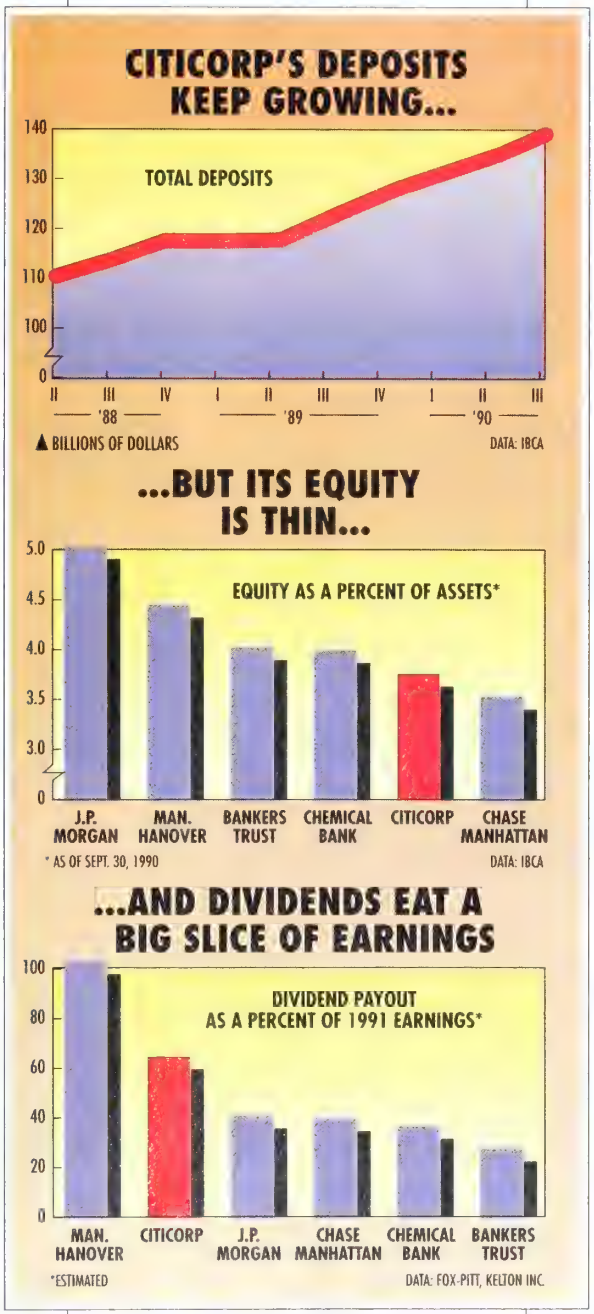
STIFF INTEREST. Despite his long-term commitment to the information business, Reed can't afford to increase spending on Quotron Systems Inc. Citicorp acquired the computerized stock-information service in 1986, and it has been in the red ever since. Much of the loss stems from the amortization of part of

acquisition price of $680 million. In first nine months of the year, Citi's ormation business, much of it Quo-, lost $152 million. Quotron recently nched a foreign-exchange trading ser- and plans other programs that uld rival those of the leader in the d, Reuters Holdings PLC. To raise the ney he needs, Reed has talked to po-tial partners about a joint venture.

Reed's most recent setback oc-red on Oct. 24 when a jittery dit market forced Citi to pay a f interest rate for short-term ds. At the time, Citi tried to rice $100 million in auction-rate ferred stock, whose dividend is et periodically. To prevent the tion from failing, which would e been a deep embarrassment Citi, the bank raised the stated on the note's yield and paid 5%. And the market demanded even loftier yield of 13% on 31.

For the moment, Reed is willing put up with the latest investor lms. He could easily redeem entire $950 million issue. After consumer deposits now supply % of the bank's funding needs. t Reed admits that calling the es could damage the bank's utation. "I thought I could get market to relax and realize y hold perfectly solid pieces of per," says Reed.

IN COMFORT. The market skit-ness followed Citi's third-quar- earnings report on Oct. 16. De-te a $780 million increase in nperforming loans, Citi in-ased its bad-loan reserves by y $82 million. As a result, Citi s enough reserves on hand to er only 39% of its bad loans, mpared with at least 70% at oth-big banks. "Citi has passed the int where they can defend those ios," says analyst Judah S. aushaar of Merrill Lynch & Co. Another sore point with the rket was Reed's reluctance to sh Citi's dividend. Faced with a nilar capital crunch, Chase Man-ttan Corp. announced in Septem-r that it was cutting its dividend half. Other banks followed suit. at raises the possibility that Citi ll take some drastic action in the al quarter, especially after the U.S. mptroller of the Currency completes a view of Citi's real estate loans in No-mber. Says analyst Thomas H. Hanley Salomon Brothers Inc.: "I don't think e market will stop until it's satisfied." So far, Reed is hanging tough. "Our edibility with the Street has to be sed on reality, not on grand ges-res," he says. Reed argues that Citi's reserves are adequate. Citi claims that about $1 billion of its $4.6 billion in nonperforming commercial loans are current, with interest and principal up to date. They were put on the nonperforming list because of potential problems. As for the dividend, a 50% reduction would save Citi some $270 million a year. But Reed says that he is reluctant to punish shareholders further. And that's an issue Citicorp's CEO understands all too well: With 500,000 shares, he is one of Citi's largest individual shareholders.



The squabble with Wall Street has obscured Reed's successes. Consumer banking earnings have been growing by $100 million a year through the 1980s and will top $1 billion this year. The centerpiece of the business remains Citi's nationwide credit-card business, rivaling American Express Co. as the world's No. 1 card issuer.

Also, Reed made good on his promise to build Citi's global franchise. Consider his foray into Japan, a tough market for foreigners. By targeting upscale consumers, Citi is unique among foreign banks in Japan. It has 12 branches, but Masamoto Yashiro, head of consumer banking, hopes to have 50 in three years.

Citi has been far less successful when it comes to traditional commercial lending. With $13.2 billion in loans outstanding, Citicorp is the biggest commercial real estate lender in the country. But the downturn in the real estate market has meant big loan losses. In the third quarter alone, nonperformers rose by $573 million, to $2.2 billion. Reed admits that real estate problems will continue to dog the bank for the next three to four years.

OVERHAUL. And its loan problems don't end there. Citi's reputation as a dealmaker and major player in the corporate finance arena has been tarnished by widely publicized missteps. One of the most notable occurred last October, when Citi failed to put together a loan package to finance a leveraged buyout of UAL Corp.

Reed began overhauling the bank last January. First, he picked Richard S. Braddock, head of the bank's consumer business, to fill the long-vacant Citicorp presidency. The appointment of Braddock has allowed Reed to devote more time to Citi's corporate business. Reed merged corporate and investment banking activities, eliminating two management levels in the process. More cuts are planned. Michael A. Callen, who heads commercial and investment banking for North America, Europe, and Japan, says he wants to reduce expenses by as much as $250 million a year. This could mean an eventual staff cutback of 2,000. Other cuts are planned in the consumer bank's 72,000-member staff, but they won't be as severe.

And expense cuts won't stop there. Executives throughout Citicorp will now have their salaries reviewed every 18 months instead of 12. Bonuses will also be trimmed, and Reed is looking at paying part of bonuses with Citi stock, something that was rejected last year. Citi has also rid itself of some unprofitable ventures. Last January, it closed down most of Citicorp Scrimgeour Vickers, a British brokerage, after a six-year struggle to make a go of it in London. And Citi is curbing ambitions on the consumer side. Much

as the bank might like to snap up a big portion of a $6.8 billion credit-card portfolio that MNC has put up for sale, Citi executives say that the bank would have to struggle to come up with the cash. That may leave the way open for American Telephone & Telegraph Co., a worrisome credit-card competitor, to cut a deal with MNC and grab even more market share.

A LITTLE SHORT. Plans to expand Citi's branch network also are slowing. Many analysts had thought that Citi would move aggressively to build a branch network in California when that state's interstate banking ban lapses in 1991. A long-rumored target was First Interstate Bancorp of Los Angeles. Citi has purchased the tiny DeAnza Bank in San Jose, which has $35 million in assets, to establish a beachhead. But Reed admits that it's difficult to make a big purchase. "Obviously, our capital position is a problem," says Reed. "We'll need a much stronger capital position to make a significant acquisition."

To boost capital, Reed will continue to rely on earnings. But he admits that he will fall just shy of his goal of boosting common equity as a percent of assets to 4% by the end of the year. It will likely end up at 3.9%. The shortfall partly reflects Citi's inability to sell off some nonstrategic businesses, such as AMBAC, its municipal bond insurance company. B Citi may yet find a buyer.

Over the long run, Reed is talking forming partnerships with other maj banks around the world by swappin portions of existing businesses. And is also looking forward to the day wh industrial companies will be allowed make equity investments in bank That's the kind of thinking that earne Reed the reputation as a visionary wi an eye on the future. Unfortunately f Reed and Citicorp, the bank's problem can't wait that long.

By John Meehan, with Leah Natha Spiro in New York, Karen Lowry Miller Tokyo, and bureau reports

AL LERNER DIDN'T SET OUT TO BE A BANKER

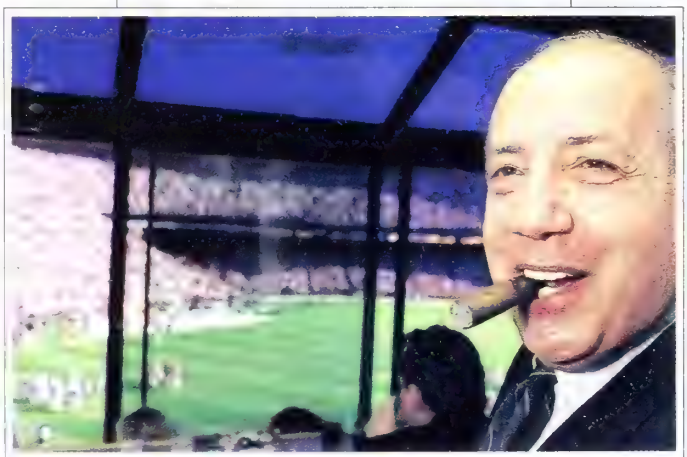
Alfred Lerner has a knack for making good investments. The 57-year-old Cleveland investor wins the praise of some of Wall Street's savviest financiers. "People who stay with this guy make money," says a business partner and friend, Alan C. Greenberg, chief executive of Bear, Stearns & Co.

But anyone who followed Lerner into his latest investment in a Baltimore bank, MNC Financial Inc., has lost a bundle. Lerner is the biggest loser. Last January, he swapped his 77% stake in Equitable Bancorp for $158 million in MNC stock when the two banks merged. With an 8.9% stake, he's MNC's largest shareholder. Since then, the bank's bad loans have come to light, knocking its stock and the value of Lerner's holdings down to $32 million. Says Lerner: "It's a paper loss, but it's a lot of paper."

LONG SHOT. Now, Lerner has one tough job to save the bank and his investment. After the merger, the real estate market plunged, and losses have mounted at the $27 billion superregional, forcing out top management. The stock, which sold at 29 in late 1989, now trades at 4. In September, the board drafted Lerner as CEO. He has mapped out a plan to sell assets, including the bank's prized credit-card operation. If his plan is successful—and it's a long shot—MNC would emerge as a healthier but smaller concern. But a turnaround won't happen soon. Says Lerner: "I would consider four years to be a respectable job."

Lerner is no banker, but he knows how to run a bank. He got into the business in 1981, when he acquired a stake in Equitable, also in Baltimore. As chairman and controlling stockholder, Lerner boosted Equitable's profitability. From 1981 through 1989, earnings quintupled while assets only doubled, to $5 billion.

Now he's trying to rescue MNC by selling the credit-card operation. The unit, which markets cards through such "affinity" groups as the American Dental Assn. and American Museum of Natural History, was a key part of former CEO Alan P. Hoblitzell Jr.'s strategy. It generated over a third of MNC's earnings last year. Analysts say the unit could fetch as much as $1.8 billion. Among the potential buyers: AT&T, General Electric, BankAmerica, and Sears.



LERNER'S $158 MILLION STAKE IS NOW WORTH JUST $32 MILLION

The proposed asset sales were announced on Oct. 25, along with the bank's $173 million third-quarter loss. The bank also boosted its nonperforming loan count to $844 million from $602 million in June. More than half of those loans are in commercial real estate. Without the credit-card dynamo, MNC will have to earn its money "taking deposits and making loans," says Lerner. That would suit the regulators, who are watching the bank very closely.

While Lerner has a lot at stake in an MNC turnaround, he won't be penniless if he fails. His fortune is estimated at $370 million. The only son of a candy store owner from Queens, N. Y., Lerner breezed through Columbia College. After a peacetime stint as a Marine pilot, Lerner took a $75-a-week furniture sales job that led him to Cleveland. There, he invested in real estate and founded Realty Re Fund Trust, a mortgage rea estate investment trust. He also owns 5% of the Cleve land Browns football team.

VOTE OF CONFIDENCE. In 1987, he parlayed a 10% stake in a Cleveland bank, Ameri trust Corp., into an estimated $40 million gain. Fearing a raid, the bank's managemen bought him out. Charges tha Lerner greenmailed Ameri trust were thrown out o court. Since 1988, he has beer chairman and a major share holder of Cleveland insure Progressive Corp. (page 122).

Lerner doesn't plan to keep the CEO job at MNC. But he'll stay on as chairman even after he hires an operating executive. Although MNC's board killed an early plan for him to invest $180 million in preferred stock, Lerner has asked regulators for the right to buy more than 25% of the common. That's his vote of confidence in the bank's future. Guys like A Lerner aren't known to throw good money after bad.

By Joseph Weber in Philadelphi

OTTOM-FISHERS RE EYEING THE BANKS

und and unsound institutions alike are at fire-sale prices

eiko H. Thieme is standing fast. When he publicly advocated buying Citicorp stock four months o, shares of the nation's largest bank ding company were at about $24. The ce has since tumbled to $11, as inves- s have fled a sector that has become ionymous with declining real estate ces, dreary balance sheets, and dubi- s Third World loans. Positive factors, ch as Citicorp's strong credit-card siness, have dominated the thoughts a dwindling few—and Thieme is one them. "Citicorp will be a $100 stock in 1990s," asserts Thieme, nager of the American ritage Fund. "I say that evocably."

Are such bank stalwarts wisely stubborn—or rageously contrarian? at question is be- ming crucial as re investors find tempting to try their nd at "bottom-fishing" ong battered stocks of ney center banks such Citicorp, Chase, and emical, as well as other nk holding companies ge and small. Over the st seven months, stocks money center banks ve declined 35%, com- red with about 9% for e Standard & Poor's 500- ck index (chart).

ARREN REPORT. To be re, investing in money nter banks is a danger- s affair at a time when e weakening economy is eaking havoc on bank balance sheets. t good and bad bank stocks alike have en pummeled, and value-hunting in- stors have begun to sniff around the eckage. Berkshire Hathaway Chair- an Warren E. Buffett gave bank cks a boost when it was disclosed last nth that he had bought a 9.8% stake Wells Fargo & Co., the California werhouse. But even a ringing endorse- ent from the Sage of Omaha was not ough to put bank stocks back on their et. Although Wells Fargo stock rose , to $51.50, in the two days after Buf- tt's stake was made public on Oct. 24, it swiftly fell back to $45 as fears spread about the viability of the West Coast real estate market (page 22).

It would take a legion of Warren Buffetts to counteract the trouncing that bank stocks have been receiving lately from brokerage-house analysts. They see a wide swath of banks that are troubled by poor asset quality—and might be severely hurt if the real estate market continues to sour. Prudential-Bache Securities Inc., for example, is recommending the sale of a who's who of the banking industry: Citicorp, Chase Manhattan, Chemical Bank, Manufacturers Hanover, Bank of New York, First Chicago, First Interstate, Security Pacific, Wells Fargo, First Union, Norwest, and PNC. Declares Pru-Bache analyst George M. Salem: "We would discourage anybody from bottom-fishing in the bank stocks."

But casting an icy gaze on all banks, no matter what their size or financial health, seems an unduly gloomy approach. Indeed, even bank bears such as Salem favor the stocks of a few solid bank holding companies with top-drawer balance sheets. One that remains on the "buy" list of several otherwise unenthusiastic analysts is Detroit-based NBD Bancorp, whose shares are trading at close to their 52-week low, despite upbeat financials. In the third quarter, the company's earnings advanced 13%, in contrast to the humdrum performance of other large banks. Nonperforming assets are a modest 1% of all loans outstanding. Nevertheless, NBD stock changes hands at only slightly above its book value and less than seven times analyst estimates of 1991 earnings.

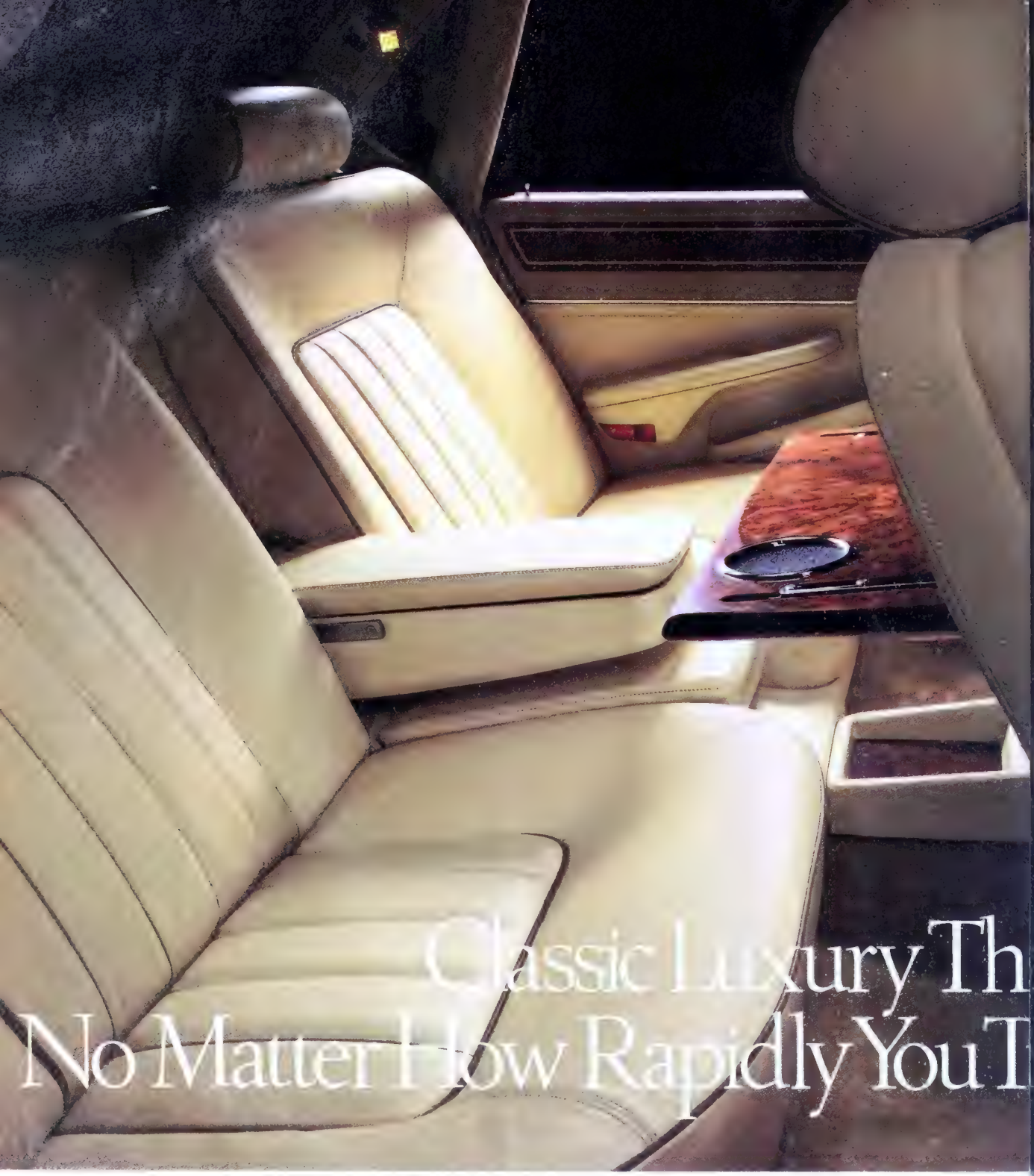
IMPRESSIVE. NBD is not alone among the roster of stocks that have been penalized by the growing bank phobia. Another is J. P. Morgan & Co., the venerable white-shoe firm, which is widely respected by even the most downbeat industry observers. Morgan has staged an impressive turnaround, in contrast to 1989, when earnings suffered from a $2 billion addition to its reserves to account for Third World loans. Earnings per share through Sept. 30 weighed in at $3.01, excluding an accounting change, vs. a loss of $7.87 last year, as Morgan raked in handsome trading and interest revenues. Nevertheless, its shares are selling at only eight times estimated 1991 earnings.

A number of appealing regional banks are also selling at fire-sale prices. Among them is First Wachovia Corp., the North Carolina bank holding company that has seen its earnings advance strongly and is trading at just 7.7 times estimated 1991 earnings. Oppenheimer & Co. analyst Cheryl Swaim sees merit in the stocks of NBD, Comerica, Republic New York, First Empire State, and Wells Fargo.

Very few analysts and money managers, however, have much favorable to say about most money center banks—and lonely are the ranks of enthusiasts such as Thieme. But Thieme is undeterred, noting that Citicorp stock has rewarded die-hard shareholders with a 16% dividend yield, which the bank has no immediate plans to eliminate. Once the stock market recovers, he insists, Citicorp will shine.

For the adventurous, taking a plunge into banks has one undeniable virtue: It flies in the face of prevailing sentiment on Wall Street. Since analysts are almost unanimous that these bedraggled companies should be avoided, perhaps it's time to take a hard look at them.

By Gary Weiss in New York



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INSURANCE

CEO LEWIS: ANALYZING REAMS OF ACCIDENT STATISTICS TO FIND THE PICK OF THE RISKIEST

BAD RISKS ARE THIS CAR INSURER'S BEST FRIENDS

Progressive has scored big profits by signing up the shunned

Progressive Corp. is a curiosity. The insurer has scored big successes in the wasteland of the insurance industry: automobile coverage. And more curious still, the company has done so by signing up the risky customers, such as those with drunk-driving arrests, whom other insurance companies routinely reject.

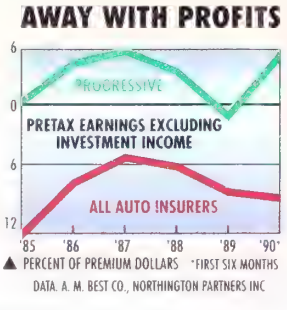
Auto insurance is a loss leader for most carriers. They offer it only to enlist customers for more profitable policies such as homeowners' liability. In many states, surging car-repair, medical, and legal bills have pushed auto-insurance-premium increases to more than 10% yearly. This is seldom sufficient to cover insurers' costs, but it certainly is enough to arouse public ire. States from California to Pennsylvania have enacted rate rollbacks that promise only to make the profit picture worse.

This gloom and doom is good news for Progressive. Such giants as State Farm, Travelers, CIGNA, and Aetna are reducing the number of auto policies they write or retreating from some states. Progressive stands ready to swoop in on their business.

BEST CANDIDATES. For the past decade, the auto-insurance industry in general has posted losses on its underwriting activities, while Progressive has strayed from the black just once—in 1989, when it started setting aside a sizable reserve against rate rollbacks in California (chart). Progressive racked up a 5.6% profit on the premium dollar during the first half of 1990 when the industry as a whole was 8.5% in the red.

Progressive's secret is simple: It picks the best candidates out of what seems a pile of bad risks and charges these underwriting pariahs extremely high rates. The rates, though, are set below those of the few competitors such as State Farm that also will take high-risk drivers. The actuarial deftness with which the company picks the best of the riskiest is rooted in obsessive fact-gathering. It's ridiculous to insure any motorist with a drunk-driving record, right? Not for Progressive. After analyzing reams of accident and arrest statistics, the insurer has found that drunk drivers with children are least likely to get in trouble again by mixing alcohol and gasoline.

Another profitable niche is insuring motorcyclists. Other companies tend to charge them by the weight of their machines. But Progressive's researchers discovered that middle-aged bikers, of whom there are many, are a pretty fair safety bet. So Progressive uses age as its key underwriting criterion. Rival insurers are beginning to follow. Says an envious competitor: "Typically, they are ahead of the curve."



The other unique thing about Progressive is its chief executive, Peter B. Lewis. The lean, bespectacled Lewis puts his individual stamp everywhere. To personalize the trauma of auto accidents, for example, he described in the 1989 annual report the death of his brother, who was killed in 1952 while driving to Canada on a fishing trip. Lewis also is a patron of the arts, buying works of both emerging and established artists.

REGULATORY SNARL. Lewis' latest brainstorm is to cut the cost of administering claims by getting customers to phone in information directly to the company as soon as an accident happens. In July Progressive set up a 24-hour, seven-day-a-week toll-free number.

Progressive has two problems: The first is that its earnings, while strong, are punished by the California reserve. This fund, now totaling $52.9 million, would be used to cover the company if the state's Proposition 103 rate rollback of 20% were ever implemented. For the time being, Proposition 103 is tied up in regulatory snarls. Most insurance analysts expect the rollback never to happen. If regulators squelch it, the fund will make a welcome appearance on Progressive's earnings statement.

The company's other problem is its stock, which has drooped to around 45 after peaking at 57 in early September. The reason is not so much the overall market decline; it's a peculiar situation involving Alfred Lerner, Progressive's investment manager and chairman. Lewis brought him aboard after tossing out the Progressive investment team following the 1987 market crash. Lerner has masterminded the insurer's canny investment moves and put $75 million of his own money into the company. But on Oct. 25, Lerner announced he had asked the Federal Reserve for permission to boost his stake in Baltimore's troubled MNC Financial Inc. from 8.9% (page 118)—and named Progressive as a possible buyer of up to 4.9%. Even though the insurer hasn't bought any MNC stock, its investors were horrified.

Lewis is scrambling to assure the market that Progressive won't sink any money into MNC. "We're not contemplating investing in MNC; not now, nor were we before," he says. Still, the company's ability to garner riches from auto insurance inspires confidence that it wouldn't get hurt with MNC, either. Progressive is good at gauging risks.

By Stephen Phillips in Mayfield Heights, Ohio

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EUROPE'S LEADING INSURANCE COMPANY

BY GENE G. MARCIAL

NOW THAT PALEY'S GONE, WILL CBS BE BACK IN PLAY?

With the death of Bill Paley, CBS founder and chairman, takeover speculators are apt to pounce on the giant TV network's stock, of which Paley controlled nearly 9%. Currently trading at 156, CBS has been on the skids since June, when it was at 206. The shares went as high as 221 last year, in part because of takeover rumors, with Disney among those said to be interested. Those rumors are likely to surge again soon.

CBS President and CEO Larry Tisch controls 24.9% of the stock, and some takeover pros believe that any constraints he may have felt about selling the company are now gone. "Even if he had wanted to, Larry would never have thought of selling the company with Paley around," says Dan Grossman, a managing partner at Tukman Capital Management, a big CBS investor. But CBS "is now the new big story" on the whisper circuit, he notes.

Based on its fundamentals, CBS is not a stock to be chased, say most media analysts. The slump in TV networks' market share and reduced advertising throughout the economy portend a bleak picture for the company's outlook. Analysts have cut back their 1990 estimate to $10 a share, from $11 to $12.50.

Still, David Londoner, a veteran media analyst at Wertheim Schroder, thinks CBS' assets and media franchise make it an undervalued and very attractive property. The company has roughly $3 billion in cash and Treasury securities, or $115 a share. And its real estate assets, even in the current market slump, would fetch about $400 million, or $15 a share, he figures. Subtracting debt, Londoner values CBS' nonbroadcast assets at $3.1 billion, or $118 a share.

FAMILY TIES. Then there are the broadcasting properties, including five TV stations and 20 radio stations in major U.S. cities, which Londoner insists could be sold for some $4 billion, or about $150 a share. Total value: $7.1 billion, or $268 a share.

Several takeover investors say they have started accumulating shares because they expect Paley's holding to end up in the hands of family members. "That could split that big block of shares," says one New York investment manager. Moreover, "Paley's absence could fragment the current CBS board and open it to a shift in direction, giving Tisch more control. Tisch is likely to be named chairman."

Based on the CEO's investing record, says one big player, he won't rush into any major deal "until he puts the company in much better shape—unless he gets an offer approaching $300 a share." Tisch is "a long-term investor, very involved in the company right now, and would think of selling CBS only if the price is right," explains the investor, who knows Tisch personally. At any price below $170, he adds, "the stock is a steal."

THE SLIDE IN CBS STOCK

DATA: BRIDGE INFORMATION SYSTEMS INC.

SOMEONE MAY BE HUNTING WOLVERINE

On Oct. 10, FMR Holdings, a Boston investor group, cut its stake in Wolverine World Wide from 8% to 5.6%. The word is that another group that holds a big block picked up the shares unloaded by FMR. Just two weeks later, Wolverine's board tightened the company's anti-takeover defenses. Why the rush?

This maker of name-brand shoes, including Hush Puppies and Brooks, also operates nearly 200 retail shoe stores. Earlier this year, there was talk that Stride Rite, another shoe manufacturer, had approached Wolverine about a merger. That pushed the stock to nearly 13. Since early July, however, it has fallen as low as 6, though it has inched up to 7 recently on big volume.

"The economic environment hasn't been good for retailers such as Wolverine," says one New York investment manager who has been buying. But the stock has "gotten to such a ridiculously low level that it has become a real bargain," he adds. Wolverine's book value is $15.50 a share, and despite the current retailing slump, this pro figures the stock is worth at least $11 a share based on conservative sales and earnings projections. A takeover would bring in more, of course.

Earnings will be under pressure this year and may drop to 90¢ a share from last year's $1.08, estimates one analyst. But in 1991, he sees earnings jumping to $1.30, partly because of Wolverine's efforts to push into the Soviet Union and Eastern Europe. Last year, Wolverine signed a licensing pact for the manufacture of Hush Puppies in the Soviet Union. A Wolverine spokesperson declined comment.

COPYCAT SCENTS THAT PURR PROFITS

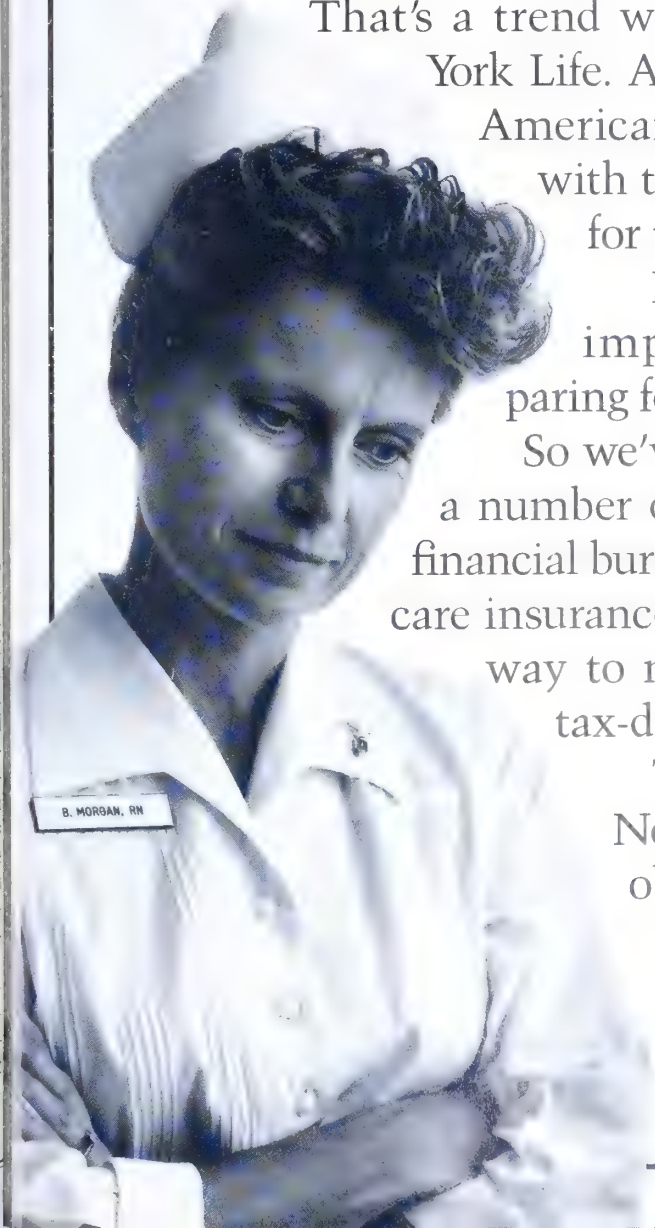
It seems as if every celebrity's name is on a perfume these days, which has made the fragrance business more competitive than ever. But a tiny manufacturer, Jean Philippe Fragrances, appears to be thriving alongside the giants, with its stock holding up well despite the market's steep fall. Its secret: producing perfumes that smell very much like their upscale counterparts but cost much less.

Jean Philippe, with 30 perfumes for men and women, has been in the black since it started in 1985. And its stock, which went public in 1988 at 1⅞, has been at 2 to 2½ since September.

The products are "French-made alternative designer fragrances sold to mass merchandisers, specialty retailers, and wholesalers," says analyst Sharon Sternberger of Ladenburg Thalmann. They retail for $3 to $15, vs. $30 to $200 for their big-name rivals. And the company recently acquired Jordache's fragrance unit, which is expected to boost 1990 sales by $1.7 million, to $8 million, and to $11 million in 1991, vs. $5.1 million last year, says Sternberger. For the third quarter, she sees profits rising to 12¢ a share from 5¢ a year ago. For the year, she expects 28¢ a share, with 1991's earnings hitting 39¢, vs. last year's 18¢.

"Right now, Jean Philippe is an earnings play in a recessionary environment," says one big investor who forecasts better-than-expected earnings. If the company does exceed its profit targets, he says, the stock could double.

If you think funeral homes are expensive, you should see what nursing homes cost.



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Which ones do you think will get to Florida first?

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PERSONAL COMPUTERS

BOOTING UP THE USED-PC BUSINESS

It's a fractured, frenetic market—with sales of $2 billion a year

If there's such a thing as personal computer heaven, it probably looks like Tony Figueiredo's cramped warehouse in Woburn, Mass. Here, reconditioned Apple Computer Inc. Macintoshes and IBM PC/ATs—hundreds of them—await new lives. This is also where loads of PC clones reach their final resting place—good for salvage, but little more. On one shelf sit 300 discontinued printers. On another are dozens of gutted plastic casings.

"This business drives me crazy," sighs Figueiredo, vice-president and co-owner of Vision Investment Recovery Inc. That's because year-old machines can be made obsolete suddenly, when a PC maker brings out a new model. And prices can plummet overnight. A few months ago, for instance, Figueiredo got a good deal on used IBM PS/2 Model 60 computers. Days later, IBM dropped the price on new ones by 35%. "Suddenly, I'm selling them below my cost," he says.

BARGAIN PRICES. Figueiredo is a broker, a player in the fractured, frenetic, used-personal-computer trade. Although independent market research is tough to come by, insiders say used-computer sales are near $2 billion annually and are growing 30% to 40% a year.

Price, of course, is driving the business. New computers lose 15% to 40% of their value as soon as they leave the packing crate, says Alexander Randall 5th, founder of Boston Computer Exchange Corp., a used-computer broker (box). Values decline steadily after that, so that by the time a machine is 5 years old, it's worth only 10% to 30% of its original price. Yet most PCs will hold up for about 10 years.

While the secondary market has been a fixture in the mainframe world for decades, it is only just taking off in PCs. Now, nine years after IBM introduced its first PC, as many as 5 million machines have been fully depreciated by their corporate owners and are ready to be replaced. In the past, old machines were handed down to workers without PCs. But in many corporations, there aren't many computerless desks left.

So, when big companies buy new PCs now, they also want to unload old machines. When the Hughes Aircraft Co. Ground Systems Group solicited bids earlier this year for 1,000 new computers, it required bidders to accept 1,000 old machines as trade-ins. "We wanted one company to take the old equipment, give us credit, and handle the sale to the outside world," says Mary Howlett, the group's PC manager. Businessland Inc. won the contract by promising just that.

Hughes isn't the only customer making such demands—which means that computer dealers are being dragged into the used-PC business whether they like it or not. Mostly they don't: Recycling equipment is a hassle and rarely produces profits for dealers. But as new PC growth rates slow to around 5% annually, taking trade-ins can help close deals. "It's going to be a requirement for selling new computers," says Michael Steffan, vice-president for corporate development at ValCom Inc., an Omaha computer chain that has expanded its trade-in program to 20 of its 186 stores. "Trade-ins provide a good tool for a good salesman [to create new business]," he says.

Computer retailers may be reluctant to deal in used equipment, but there are plenty of entrepreneurs who love the idea. Dealers usually turn trade-ins over to brokers such as Figueiredo's Vision Investment or Exsel Inc. in Rochester, N. Y. The brokers thrive by accurately gauging the value of used machines, reconditioning them, and getting them out the door quickly. One of the largest brokers, Exsel, says it sells 2,000 reconditioned PCs a month and expects revenues to reach $25 million this year. Exsel President Sean R. Repko buys PCs by the handful or by the hundreds, concentrating on top brands: IBM, Compaq, and Apple. They sell easily, he says, while clones "go for next to nothing."

SPRUCED UP. Repko typically pays sellers half of what their equipment will bring after reconditioning. He usually delays payment to sellers for 30 to 60 days—by which time he has refurbished and resold the PCs. Old boxes are repainted, lost logos are replaced, and grimy keyboards are dipped in a cleaning solution. The sprucing-up costs $20 per unit.

Then he looks for buyers. These come in all stripes. In April, he says, he shipped 850 IBM PC/XTs—the predecessor to the

EXSEL PRESIDENT REPKO CONCENTRATES ON BUYING AND SELLING TOP BRANDS: "CLONES GO FOR NEXT TO NOTHING"

34-vintage PC/AT—for
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ons, but Carlini intends to fill foreign
plants with as many used machines as possible.

Computer makers insist that customers such as Carlini are rare. Most buyers, they say, don't want used equipment. "We don't think it's a significant factor," says Mark J. Marlow, a vice-president at clonemaker Everex Systems Inc. in Fremont, Calif.

That could change if buyers for other big companies begin to follow Carlini's lead. Used-PC brokers say they are doing more business with big corporations—at the expense of new PC sales. At Georgia Trane, an air-conditioning franchise in Atlanta, only IBM equipment would work on its PC network. As the company grew, Georgia Trane needed to add more PCs but balked at shelling out $3,000 apiece for new machines. So, it bought old PC/ATs for about $1,300 each.

Ford and Georgia Trane have overcome the stigma of buying used PCs. That, say brokers, could eliminate a big stumbling block for other major companies. "There's absolutely nothing wrong with these machines," says Ford's Carlini. Nothing anyway, that a good dusting, some paint, and a few new parts won't fix.

By Keith H. Hammonds in Woburn, Mass., with Barbara Buell in San Francisco

PICKING UP PCs ON THE CHEAP

	NEW PRICE*	USED PRICE
IBM PS/2 MODEL 55SX 60-MEGABYTE DRIVE	$3,034	$2,300
COMPAQ SLT-286 LAPTOP 20-MEGABYTE DRIVE	3,959	2,500
APPLE MACINTOSH IICX 40-MEGABYTE DRIVE	3,839	3,550

PRICES AS OF OCT. 26. ALL MODELS INCLUDE MONOCHROME MONITOR AND KEYBOARD

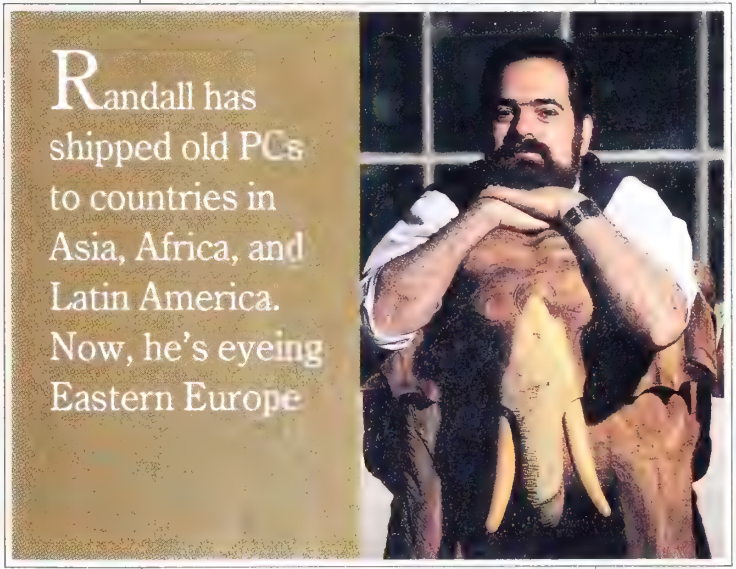
ALEX RANDALL: PLANTING 'SEEDS' IN THE THIRD WORLD

Who is Alex Randall 5th? Self-interested capitalist or high-tech missionary? With Ran-
all, a pioneer of the used personal-
mputer business, the distinction isn't
ntirely clear.

Seven years ago, Randall the Money-
aker founded Boston
omputer Exchange
orp., the first reseller of
sed PCs. For a 10% com-
ission, Randall's nine
alespeople match PC buy-
s with sellers. The com-
any, which Randall runs
ith his wife, Cameron
all, works like a finan-
al exchange: It doesn't
ake possession of the
Cs, it brokers them. As
ith hog bellies, prices
uctuate hourly accord-
ng to supply and de-
and. Randall won't di-
ulge revenues, but he
ays he handles "thou-
nds" of machines each
onth and makes "a lot"
f money. Indeed, his
ony Beacon Hill townhouse and other
oston properties attest to his success.

ICYCLE GENERATOR. Lately, the world
as been seeing more of Randall the
umanist, who carts used PCs to un-
erdeveloped countries. True, he says
e may someday make a buck on that
usiness. But his primary motivation
eflects his Quaker upbringing, which taught him to "plant seeds with my contributions," he says. "The profitability of our business is in North America. I could turn my back on the rest of the world."

His interest in the Third World dates back to his graduate studies under anthropologist Margaret Mead at Columbia University. The idea of doing business in developing nations first hit him nearly 10 years ago, when he saw a relief worker running a homemade PC off a bicycle generator in a rice paddy in Bali. Since then, Randall has dispatched old PCs to countries in Asia, Africa, and Latin America.



Now, he's eyeing Eastern Europe. Randall has sold a few PCs to Soviet customers, and hired representatives to pursue deals. He's not alone: New York-based National Computer Exchange is targeting the region, too.

UNTAPPED MARKETS. Randall's interest in less-developed economies isn't completely altruistic, of course. While the U. S. is glutted with used PCs, developing countries are an enormous potential dumping ground for the machines.

There are other ways to make money in the used-PC trade, too. Randall has sold 125 licenses for his exchange concept—some at $10,000 apiece. About 100 of those have flopped, but the other 25 are still active. Randall also sells $120 annual subscriptions to his weekly used-PC price list. His new book, *Alex Randall's Used Computer Handbook*, goes for $14.95.

Randall credits his wife, an economist, with spotting the merchandising angles. She "taught me that having a good idea isn't enough. We need to make money," he says. If Randall manages to change the world while he pads his bank account, so much the better.

By Keith H. Hammonds in Boston

SETH RESNICK

SOFTWARE

THE FOUNDER IS BACK, BUT SO FAR, ASK ISN'T

Sandy Kurtzig returns. Can she dust off a turnaround?

Sandra Kurtzig did what most people can only dream about. At 39, she gave up her job to travel and spend time with her two sons. She had become rich as founder and chief executive of ASK Computer Systems Inc., which sells programs to manage manufacturing. In retirement, she enjoyed cruising through Silicon Valley in her Ferrari—when she wasn't off to New York, India, Africa, or her vacation home in Hawaii. At home in California, an English butler ironed her newspapers so they wouldn't smudge. She took time to reflect on her life as one of the computer industry's most celebrated females by writing an autobiography.

Five years later, Kurtzig's career as a lady of leisure is over. With ASK stalling, its directors coaxed the founder out of retirement last year. Since then, she has been trying to restore profits. But Kurtzig complicated things in September when she agreed to buy Ingres Corp., a troubled maker of data-base software. The $131 million buyout drew her into a proxy fight with shareholder James P. Lennane, who owns 7% of ASK's shares and opposed the move. "Her entire career is going to be judged on this," says Lennane, who demanded a board seat at the Oct. 26 annual meeting. The results of the vote will be made public by Nov. 8, but ASK says a preliminary count showed he failed.

BROADER MARKET? Kurtzig knew right away that her second go-round might be even tougher than creating the company in the first place. When she was called back, ASK's earnings were slumping and its software badly needed an overhaul. But with her sons in their teens, she was ready to get back into the executive suite—even though it meant displacing her handpicked successor, CEO Ronald W. Braniff. "New products weren't being developed, and the company was drifting," she says.

The brassy Kurtzig has been shaking up ASK ever since. She named three new vice-presidents and boosted funds for new products from 10% of the R&D budget to 50%. Most ASK products now are geared to the proprietary software that controls Hewlett-Packard, Digital Equipment, and IBM minicomputers. But new versions, due in 1991, will be based on Ingres' data base and will work on any computer using the Unix operating system. That should broaden ASK's market and make it easier for companies to link factories to offices.

But Kurtzig's efforts have yet to pay off. In the year ended June 30, earnings plunged 63% to $5 million on $207 million in sales. And net income in the most recent quarter was a meager 1.6% of sales—far from her goal of 10%. ASK's stock now trades at around 6 (chart).

Before ASK is out of the sick ward, Kurtzig must heal In gres, which gets kudos from customer but has been losing money because c weak marketing and intense compet tion. "It's a double gamble to manag two turnarounds," says Montgomery S curities analyst David Bayer. Adds In gres' former chairman, Gary J. Mo genthaler: "I wouldn't underestimate th challenge of managing two quite diffe ent businesses."

Kurtzig has some able a lies to better her odds. To f nance the Ingres deal, sh sold 30% of the company t Hewlett-Packard Co. an Electronic Data System Corp. by issuing $60 millio in new shares. She figure their backing will help wi customers and open the wa for joint marketing or deve opment. She's also countin on old-fashioned cutbacks— 15% layoff, for example, a Ingres to boost earnings.

NO SURPRISES. But Kurtzi won't have much margi for error. "She has 1 months to show measu able progress," says a m jor institutional stockhol er that has bee supportive of Kurtzig Lennane warns that In gres will drag a recove ing ASK down. He sued t block the issuance of ne stock to EDS and HP, charging that wit out shareholder approval, the move vi lated NASDAQ rules. To keep the de alive, Kurtzig delisted ASK stock fro the NASDAQ National Market Syste That relegates it to the less liquid, les prestigious over-the-counter market.

Those who know Kurtzig well aren surprised that she has brought actio and controversy back to her brainchil "She's a very strong and very tenacio person with incredible energy," say Dennis McGinn, general manager HP's Industry Ma keting Group. Ar she has a knack f motivating emplo ees, says DEC Vic President Dav Copeland. "The pe ple at ASK once aga have a spark in the eyes," he says. "Yo can literally see it The question whether that spar will be enough t bring ASK around.

By Maria Shao i Mountain View, Cal

CNBC Lands Dorfman

By DAVIS McSHANE

Dan Dorfman, universally recognized as one of the nation's most influential financial reporters, has inked a multiyear deal with CNBC. The announcement was made by Albert Barber, President of CNBC. As part of the deal, Mr. Dorfman will also frequently appear with CNBC's parent company, NBC.

Mr. Dorfman, who is presently seen on CNN, is one of the financial world's most recognized and respected personalities.

"It's logical for Dan," said Barber, "to want the best possible showcase for his talents. His decision to move to CNBC underscores his recognition that in the '90s, no one will match CNBC in delivering comprehensive up-to-the-minute business and financial news."

According to one industry insider, the signing of Mr. Dorfman (cont'd. page A16)

AS USUAL, DAN DORFMAN KNEW ABOUT THE DAY'S BIGGEST FINANCIAL STORY WELL IN ADVANCE OF OTHER REPORTERS.

Then again, this time, Dan is the story. Because he just signed a multi-year contract with CNBC.

Which means he'll be bringing his incisive reporting and commentary to CNBC, complementing a team of business experts that already includes Sue Herera, Dean Shepherd, Neil Cavuto, Hillary Johnson and Roy Blumberg.

And as you might expect, that's big news for the financial world.

As usual, you heard it from us first.

You can see Dan every day on *The Moneywheel* (12:05 p.m.), three nights a week on *Business View* (6:30 - 7:30 p.m.), and three mornings a week on *World Business* (6:00 - 8:00 a.m.).

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In fact, thousands of applications are available for the AS/400, each created to help different kinds of companies solve their kinds of problems, their way.

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S/400 because if I ever ean I've become very rich."

d up to hundreds of new users, including ople on PCs and PC LANs. You can build a ntralized data base that will help you make tter decisions more quickly. And you can ing far-flung locations together in a single 5/400 network.

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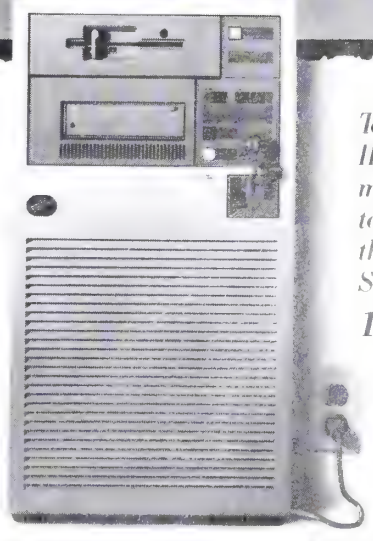

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THE STRATEGIC LINK BETWEEN BUSINESS PARTNERS

REAPING THE REWARDS OF EDI It's not a question of whether your company will be involved with Electronic Data Interchange (EDI)—it's when.

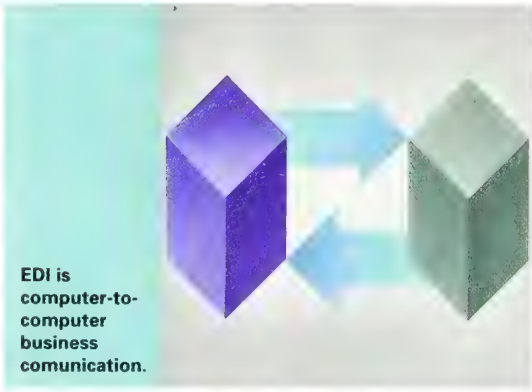
Like the telephone, the personal computer and the fax, EDI is rapidly becoming a prerequisite for participating in today's global business environment, an environment that is becoming increasingly more dependent on networking and computer technology.

EDI is nothing new. The transportation industry, lead by the railroads, began using EDI techniques over twenty years ago. But it is only in the past several years that computer hardware, software and communications networks have evolved to a point where EDI can become a widespread reality.

Not only will EDI have a major impact on the way your company interacts with the external world, but its effects will ripple through your entire organization. Your business will never be the same.

WHAT IS EDI? EDI is the computer-to-computer interchange of business documents between companies in machine-readable form, employing strictly defined industry standards. Instead of exchanging conventional paper documents through the mail, purchase orders, invoices, way bills, shipping advice and other documents are transmitted electronically between trading partners over data communications lines.

Re-keying errors are eliminated, transmission times are shortened from days or even weeks to seconds, and the data imbedded in the EDI message can automatically initiate a whole series of related actions. For example, inventories can be updated, material releases can be issued against open purchase orders, customers invoiced, suppliers paid and shipping status advisories sent, all without human intervention.



EDI is computer-to-computer business comunication.

The potential for savings and streamlining of operations is so enormous that many industries have mandated that their suppliers make the necessary investment in EDI hardware and software—usually a personal computer, specialized translation software, and a subscription to a network. As one large retailer commented, "We made it very simple for our vendors. We told them, if you don't have EDI, we can't do business."

Jerome L. Dreyer, president and CEO of TDCC/EDIA (Transportation Data Coordination Committee/Electromic Data Interchange Association... we'll simply refer to it as EDIA from this point on) comments that "in addition to significant short term benefits—for example, cutting the cost of sending a bill of lading from $13 to $1.50—industries that have implemented EDI are reporting substantial increases in productivity and long term savings in the millions.

"The industry is just starting up its growth curve," he continued. "In 1990, EDI revenues were up about 40 percent over the previous year, and we expect continuing growth of between 20 and 40 percent over the next five years. Right now, the vendor marketplace is relatively small...revenues are running between $15 and $20 million. That will increase to over a half billion dollars in the next three to five years as EDI becomes a business necessity both in the U.S. and overseas."

Digital Equipment Corporation, one of the major

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vendors that have thrown their hats into the EDI ring, is even more sanguine. DEC forecasts a market of $2 billion by the mid-1990s as businesses rush to improve their performance in quality control, time to market, customer response, and cost containment in such areas as order administration, distribution and purchasing.

An organization in Dallas, TX, with the enthusiastic name of EDI, spread the word!, publishes a yellow pages of EDI users. They report a growth rate of 45 percent per year since 1987 with over 12,000 registered users in 52 countries.

These optimistic forecasts are buoyed by results already achieved in a variety of industries.

For example, the railroad industry, where EDI has its roots, adopted the technology across the board in the mid-1970s.

"Our industry was a natural for EDI," recalls Henry Meetze, president of RailLinc Corp., the organization that provides the data communications network for the railroad industry. "Railroads operate over large areas and over one-half of the loaded moves (of freight cars) involves two or more carriers. In the past, as each freight car was shifted from one carrier to another, a paper way bill describing the commodity that the car carried, the route travelled, destination, etc., had to be physically transferred."

Today, Meetze reports, EDI transactions between railroads, their customers and suppliers, account for about 750,000 EDI messages a day moving through the RailLinc network. On peak days, traffic can exceed one million messages.

Nicole Willenz, a member of the Price Waterhouse EDI Services team, reports that the grocery industry, one of the pioneers in the use of the technology, estimates overall savings at $300 million per year. In an article in the Review, Price Waterhouse's external publication, she notes that the automotive industry identified about $200 million worth of

EDI IN ACTION

For those contemplating EDI, it is heartening is to review a few success stories from companies who have made the plunge.

For example, Eastman Kodak has 160 trading partners using EDI for material management. The company uses a custom version of GEInformationServices EDI*Express Service in their medical business.

With some 5000 suppliers, JCPenney was looking to streamline its complex merchandising operation. To date, 300 of those suppliers are part of the company's Quick Response program and goods are now arriving up to 10 days earlier at JCPenney stores.

Even old line industries are getting into the act. When Richard D. Besser became the new CEO of Chicago Pneumatic Tool several years ago, he transformed the lethargic air tools company into a 1990s corporation. Part of that transformation was the implementation of EDI.

Besser says that the quantitative savings will be substantial. But far more important, he emphasized, is cementing the relationship between Chicago Pneumatic and its distributors. "They have become part of our sales team," he says.

Aerospace manufacturer Pratt & Whitney turned to AT&T to provide EDI links to hundreds of its customers and suppliers worldwide. And the Ford Motor company used EDI in conjunction with its Just-In-Time (JIT) experimental manufacturing plant in Lorain, Ohio. Estimates are that if the entire U.S. auto industry adopted EDI, savings could range as high as $2 billion per year.

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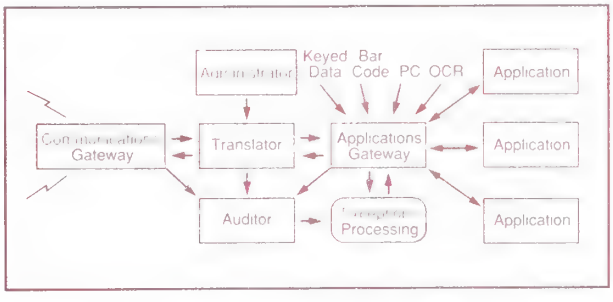
The major benefits are realized by those who successfully integrate EDI into their businesses... processing Quick Response orders, delivering ship notices to JIT systems, moving from paper-based to invoice-less payments... Integrating EDI into business software systems makes it all possible. But until now, effective integration has required costly programming. And, ongoing maintenance to cope with change.

Now, an innovative new approach simplifies EDI implementation and reduces the cost. Using Trading Partner™ and its Applications Gateway, you can link EDI data tightly into your business and insulate your systems from change... all without costly programming.

You are invited to learn about this new approach at a free seminar led by EDI pioneer Paul Lemme, who will examine the keys to EDI success. You will be introduced to TSI's EDI management software, Trading Partner and TranSlate™. TSI International is the worldwide leader in data integration software, providing mainframe-based solutions for over 20 years.



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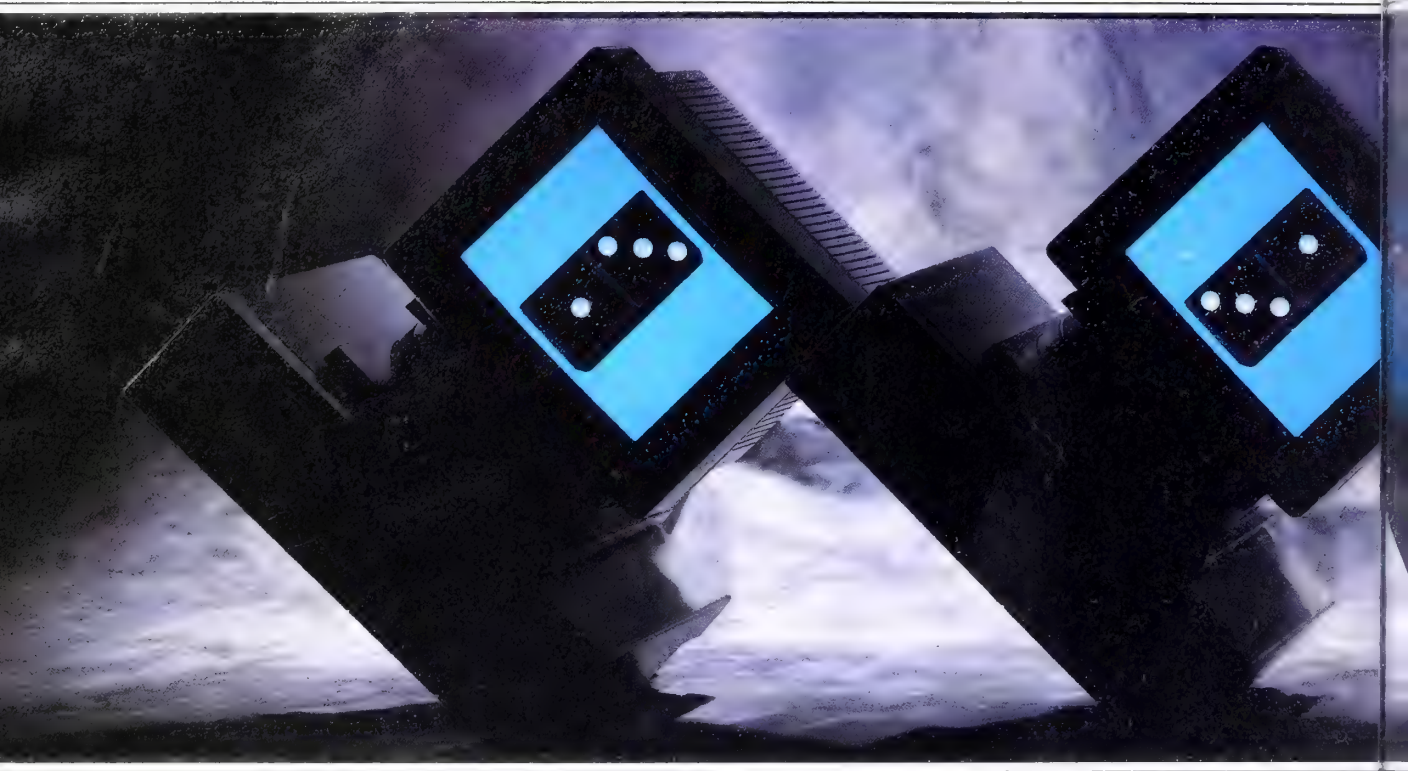

Here at AT&T, we know that an Electronic Data Interchange service is only as good as its component parts. That's why we've designed each part of AT&T EDI to be equally strong. Why does our EDI stand up to your business' needs better than any other? It's a matter of simple addition.

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AT&T EDI is part of the AT&T Global Messaging Network. This network is based on our patented "Message Transfer Architecture" that uses CCITT MHS X.400, the internationally accepted messaging standard. So you can easily link up with trading partners around the world. And you can send and receive encrypted data, ensuring the security of sensitive documents. Furthermore, the AT&T Global Messaging Network can be used not only for EDI but for electronic mail and enhanced fax.

+Systems

Our unique open architecture means that our EDI can work with whatever systems you hav whether they're mainframe, mini or PC-based. We have the software and systems for you and your trading partners, no matter what size they are or how advanced they may be. And with our ope architecture, we make it easy for your system to adapt as your business grows.

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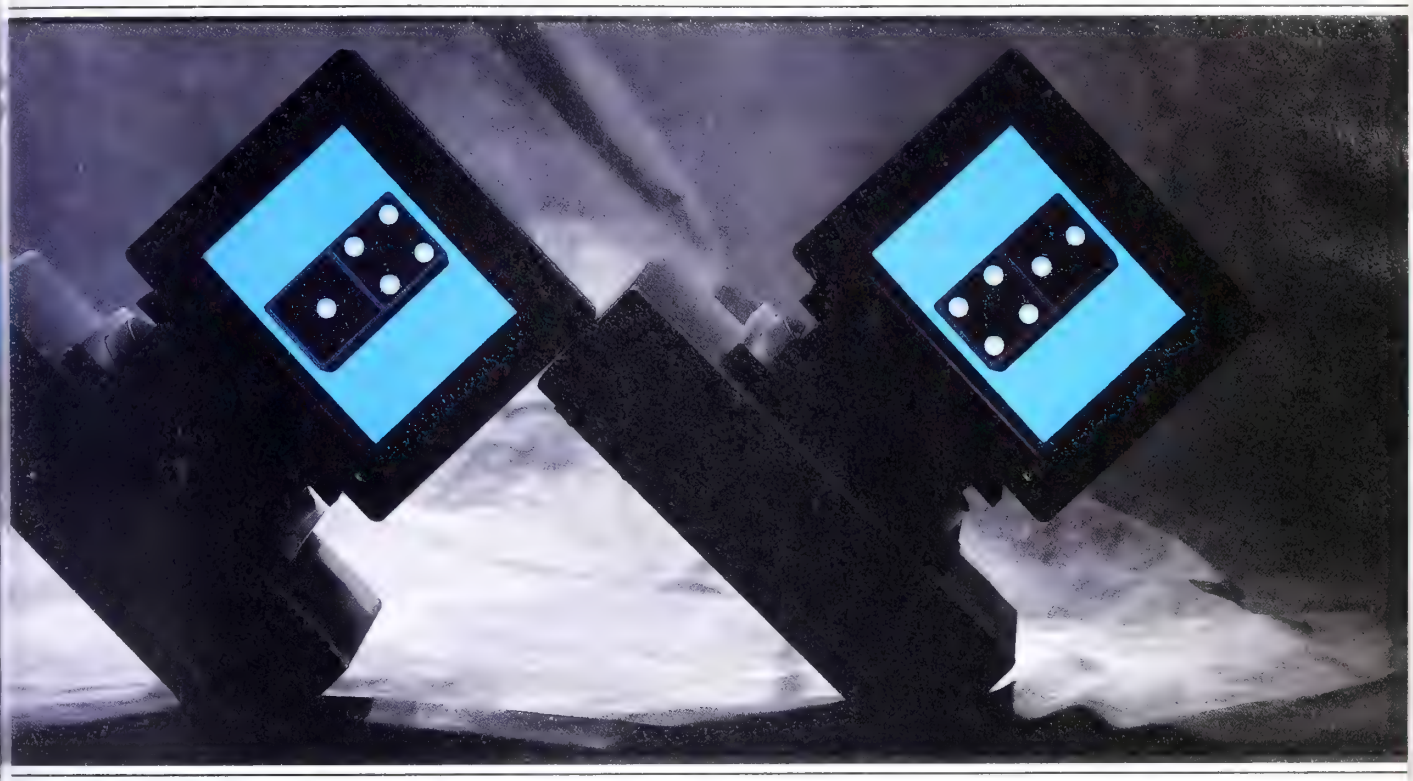

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waste because of paper shuffling, including bills, orders and information requests. The bottom line was an additional $200 of cost added to each car.

AN INTERNATIONAL MOVEMENT Although EDI had its beginnings in the U.S., it is being adopted worldwide as global commerce and competition intensifies. All the basic advantages that domestic enterprises find so attractive apply : improved timeliness and accuracy of information, reduced costs, better inventory control, better supplier relationships and improved competitiveness. As Input, the Mountain View, CA, based market research firm, notes in its December 1989 report, "EDIFACT: A Status Report and Guide to Decision Making," the reasons are compelling to use EDI for international transactions.

The report points to the complex trade document requirements and complicated relationships involved when—in addition to the principal trading partners—freight forwarders, PTT's, brokers, banks, insurers, customs and other government agencies are involved.

Worldwide competition will mean worldwide EDI.

The report also notes that "the cost of international documentation to U.S. shippers has been estimated at $8 billion annually, and $40 billion annually worldwide, representing some seven billion trade documents plus copies each year."

Paperwork can account for eight percent of the total cost of an international transaction. And, where there is paperwork, there are errors...errors that can delay shipments, add costs and have a negative impact on manufacturing, distribution and sales chains. Input says that approximately half of all issued letters of credit contain clerical errors. EDI can help alleviate these problems.

A QUESTION OF STANDARDS Essential to the global spread of EDI is the adoption of uniform standards governing the formatting and transmission of electronic messages between trading partners.

Unfortunately, the development of standards is never a simple procedure characterized by general unanimity, swift adoption and smiles all around. Not surprisingly, the world of EDI standards has its share of controversy and problems.

There are layer upon layer of EDI standards, even though the technology is in its relative infancy. In the U.S., most businesses are using or plan to use the American National Standards Institute X12 format. Internationally, EDIFACT, an acronym for EDI for Administration, Commerce and Transport, is gaining the upper hand. Proprietary standards, developed by individual EDI vendors for a specific user applications, also exist. To add to the confusion, industry specific standards, such as the grocery industry's UCS standard, along with company specific standards, such as Sears' SENDEN system for supplier communications, add to the heady brew of acronyms and overlapping approaches.

Where do you go for help? Look to the user groups when you need EDI standards support, advises veteran consultant Richard C. Norris of A.D. Little, Boston, MA. International and national standards "are very general," he comments. "They're like a Swiss Army knife with 500 blades; X12 fits everything. The user group's job is to throw away

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most of the standard, retain what applies to their industry, and tailor it to fit."

GETTING YOUR MESSAGE ACROSS In the meantime, EDI suppliers are taking steps to make sure that electronic messages can be sent from your company to your trading partners despite the difficulties posed by various standards, complex tariffs, regulatory red tape and cultural differences.

For example, Value Added Network providers (VANS) such as Infonet, GE Information Services, BT/Tymnet and World Communications have established global networks by making joint venture or remarketing agreements with regional VANS. EDI messages transmitted over their networks are delivered to the borders of the target foreign country, and handed off to a regional VAN, who in turn delivers them to the proper address. This movement of data between companies and across national borders has far reaching implications.

"EDI," notes EDIA's Dreyer, "is a catalyst for change. " Not only does it become an important part of an organization's entire information technology environment, but, more importantly, EDI is creating new and closer relationships between businesses.

"Internally, once EDI is in place, it has a ripple effect throughout the company's whole infrastructure. Externally it radically modifies the company's relationship with its suppliers. The edges between trading partners begin to blur, creating a new interrelated organization that begins to function like a single organism."

NOT ALL FUN AND GAMES Despite the technology's widespread appeal, even the most

EDI PRODUCTS AND SERVICES

The list of vendors providing EDI products and services is growing rapidly. For example, all of the major computer companies are involved, particularly Digital Equipment Corporation, Unisys and International Business Machines.

EDI network services are the province of the Value Added Network (VAN) suppliers, such as AT&T, BT TYMNET, Infonet, GE Information Services, Sterling Software ORDERNET Services Division, CompuServe, Sears Communications Company and a host of others. The Regional Bell Operating Companies (RBOCS) are all gearing up for a big push into EDI.

Many of the major banks have combined EFT (Electronic Funds Transfer) and EDI to provide electronic payment and accounting services to their customers. For example, First Chicago was the leader in a network of American banks that pioneered the first EDI payment system. A Chicago neighbor and competitor, Continental Bank, was the first to convert a company's lockbox payment information into the ANSI X12 standard.

Translation and management software is available from vendors both large and small. For example, Sterling Software makes a wide variety of software available with its GENETRAN products.

Supply Tech, Inc. , located in Southfield, MI, has locked up one-third of the EDI translation market with a product that supports both ANSI X12 and EDIFACT. Supply Tech typifies the global reach of EDI with over 3500 installations in 14 countries.

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Uniform standards are necessary for the growth of EDI.

ardent boosters of EDI will admit that there are some problems.

Norman F. Barber, president of Cornerstone, a Framingham, MA. consulting firm specializing in EDI, has taken a hard look at some of the pitfalls associated with implementing the technology.

Barber reports that an information manager from a large company recently told him, "EDI can be a sleeper. You install it with high hopes and then you find that it's costing you all kinds of money."

Barber agrees. He notes that while the initial decision to install EDI, given all the benefits, may be a "no-brainer," there can be problems when intergrating the technology into an environment involving separate business entities, various corporate cultures and an incompatible technological infrastructure.

"Budgets are everywhere within the organization," Barber says. "It's really hard to get a handle on the cost of ownership. And smaller companies report that the cost of EDI outweighs the benefits."

Many smaller companies have had EDI thrust upon them by larger trading partners, known in industry jargon as "hubs" or "sponsors." Many lack the technical infrastructure to take advantage of the benefits that EDI can bring their organization, leading to what Barber calls "door-to-door" EDI.

The scenario goes something like this: The 800 pound gorilla, the sponsor, tells its suppliers that if they want to do business, they must implement EDI. Coerced, the smaller company buys a few more personal computers, purchases some translation software, and hooks on to a network.

The large company begins sending EDI messages to its trading partners, such as purchase orders for merchandise. The small company receives the electronic message, promptly prints out the P.O., handles it exactly as it has conventional paper-based P.O.s, fulfills the order, and then has a clerk rekey the information into the purchasing company's EDI format and zap it back over the network.

Tom Costello, an EDI product marketing manager at Unisys, recounts a similar tale. "I visited one company where they had a whole bank of PCs lined up against the wall. A secretary would take a paper form over to the PC, type in the information, plug in a modem, dial their trading partner number, and send the file. 'Glory be, she said, we're doing EDI!' "

EXPECT CHANGE Implementing true EDI into your company will have a profound impact on the way you do business and on the internal structure of your organization. As Costello comments, "Most companies' internal policies and bureaucracies are based on moving paper. Remove the paper and everything changes.

"Not only are there legal, accounting and auditing implications, but organizational ones as well. Suppose you're a vice president in charge of materials management and you have 36 people working for you keeping track of what's bought and sold. By implementing EDI, you'll reduce the people reporting to you to six. As a VP, isn't your present staff of three dozen part of who you are?"

But, says Costello, despite these and other roadblocks to EDI, it will be implemented. Major companies in almost every industry can realize

tremendous savings and efficiencies, increase customer service, lower inventories and increase their competitive edge. With incentives like these, EDI is inevitable.

WILL EDI PAY OFF FOR YOU? Odds are the answer is yes, depite the pitfalls. Your chances of seeing immediate bottom line results are much better if you happen to be the large vendor asking your smaller trading partners to become part of your EDI network. If you are on the receiving end, EDI will cost you money, but it may be the only way to keep on doing business with a major customer. If you can integrate EDI into your operations and not be content with "door to door" EDI, you will not only save money, but more importantly, you will save time.

EDI, says A.D. Little's Norris, is an on-going process, not just a minor one-time implementation. "It reminds me of companies getting into computers back in 1963...their involvement became an on-going evolution which continues today."

"Small companies who have the technical infrastructure to accept EDI are in pretty good shape," he says. "EDI is not really that hard to do...it's like bar coding products, it's not an unreasonable requirement anymore. The big companies should say, 'Just do it.'"

This special advertising section was sponsored by the Electronic Data Interchange Association. The text was prepared by Kirkley Communications. Illustrations by Stanislaw Fernandez. Icon art by Michele Lerner. Art Direction and design by Platinum Design, Inc., NYC.

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GURUS

WHY ARE MUTUAL FUNDS SO ANGRY WITH DICK FABIAN?

His 45,000 readers move their millions at the drop of a newsletter

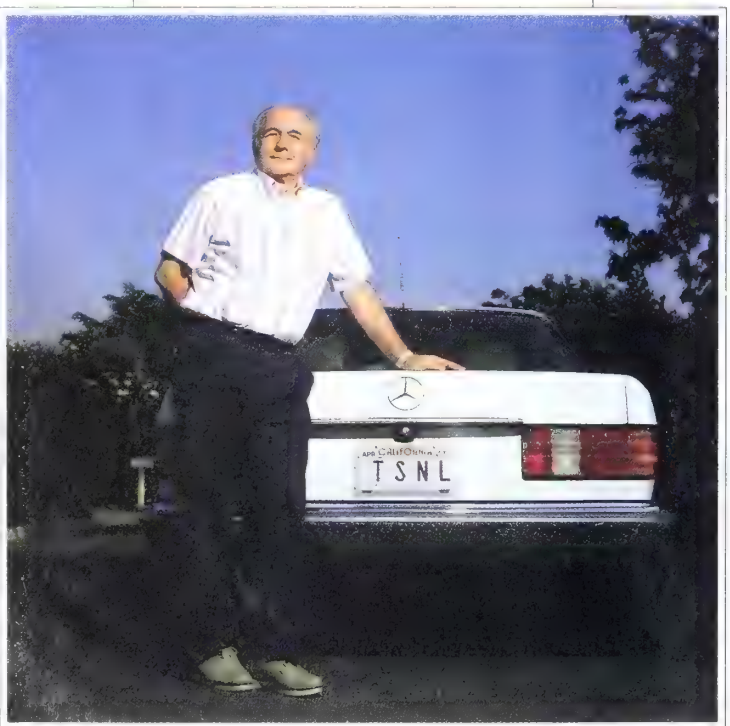
Dick Fabian has never been one to play by someone else's rules. When the Huntington Beach (Calif.) investment adviser decided to learn the piano a few years ago, he quickly ran through half a dozen instructors and manuals. Nothing worked. Finally, he enlisted a friend, George Miladin, to help him develop a simple method for learning his favorite songs. Recalls Miladin: "He said no teacher could endure him."

Nor can Fidelity Investments, as it happens. Fabian, 65, is the publisher of the *Telephone Switch Newsletter*, which has been playing havoc with Fidelity mutual funds. The newsletter—derided by some financial experts yet still one of the most popular of its kind—advises its 45,000 subscribers when to move their money in and out of equity mutual funds. Angered by what it considers disruptive trading, Boston-based Fidelity notified customers in mid-October that it will no longer accept purchases recommended by market-timing newsletters. How does Fidelity get away with it? Like other mutual-fund companies, it reserves the right to regulate the money coming in.

MARCH MADNESS. The trouble came to a head in March, when a Fabian "buy" signal pumped $41 million into Fidelity's $251 million Contra Fund in two days. Two days later, Fabian issued a sell recommendation, and $29 million promptly departed for money-market funds. "March was the last straw," says Fidelity Senior Vice-President William J. Hayes. "It's akin to a captain on a boat saying, 'Everyone to port side.' The boat capsizes." Fabian blasts the new policy as "selective discrimination."

The 13-year-old newsletter, which sells for $117 a year, is a true family affair. Wife Marie handles inquiries, son Doug edits the newsletter, son Gary programs the company's computers, daughter Mary Jayne assists customers, and 84-year-old mother Mickey Goode licks stamps and stuffs envelopes. The family's shirt-sleeved patriarch is in almost constant motion, waving his arms and throwing out opinions in a raspy Brooklyn accent. Says friend John M. Butler, a Denver-based mutual-fund operator: "He's so enthusiastic that sometimes you just want to leave the room."

Fabian saves much of his enthusiasm for California living. A former data processor with a bachelor's degree in economics from New York University, Fabian says he got fed up with watching Rose Bowl fans soak up sunshine while he endured Connecticut sleet. In 1959, he packed his wife and kids in the station wagon and headed for the West Coast. First he sold homes, then stock. Dismayed at customer losses in the bear market of 1969-70, he came up with his current system of "trend following" to avoid market downswings. Besides the monthly newsletter, he now manages just under $100 million in stock, gold and money funds through Fabian Financial Services. Never one to miss an opportunity, he recently began peddling cassettes and books of piano instruction as well.



FABIAN: FIDELITY SAYS A HUGE SWING IN MARCH WAS "THE LAST STRAW"

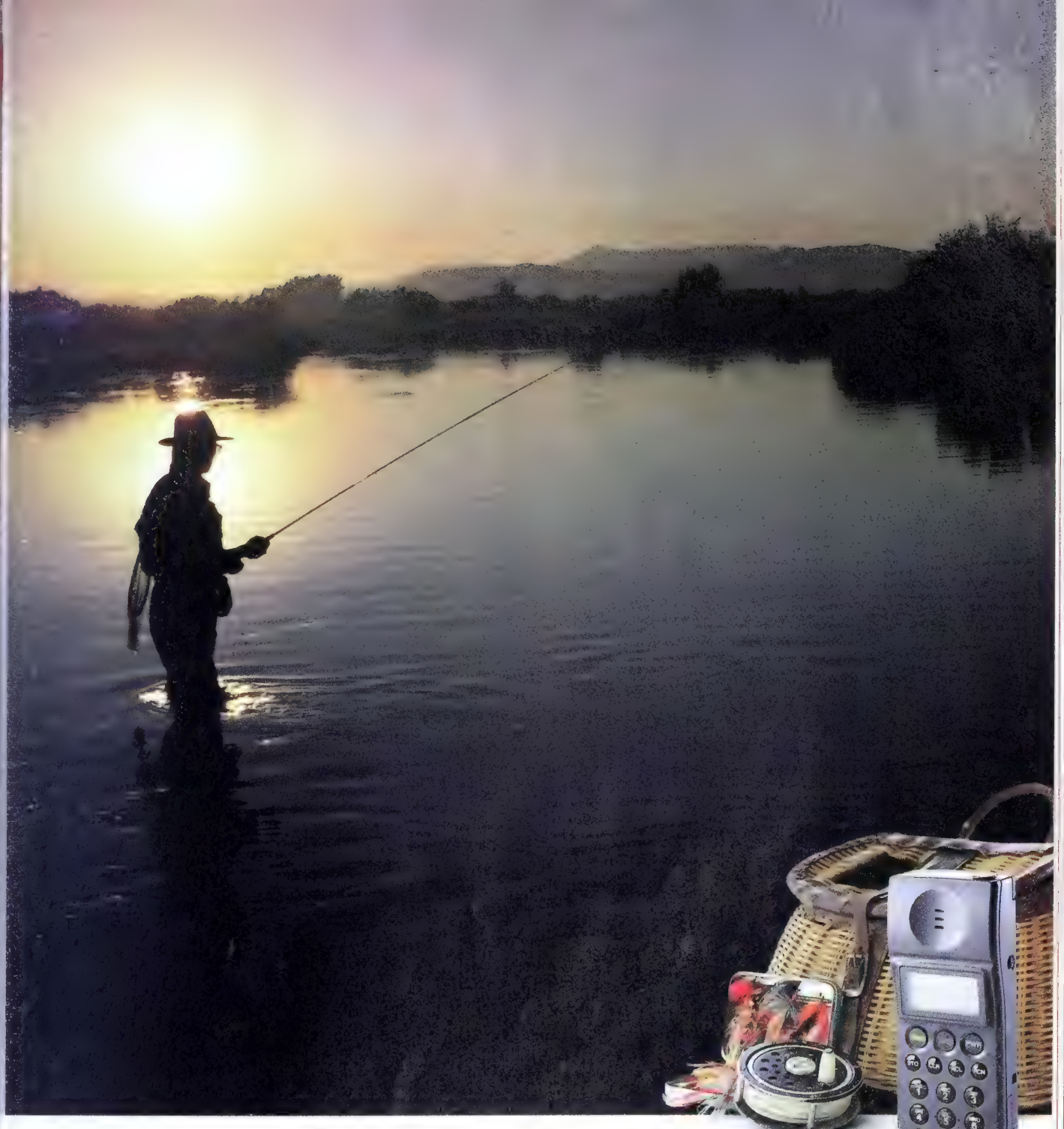
DUCKING BEARS. Here's how his market timing system works: He tracks the stock market's average closing price, as measured by a group of five mutual funds, over a 39-week period. Then, he compares that to the current price of that index. Whenever the current price climbs above the 39-week moving average, he issues a call to buy any one of the 42 funds on his "recommended list." When it drops below, he hollers for a sell-off into money-market funds. By ducking bear markets, Fabian claims, his investors have averaged a 17.12% annual compounded return since 1977.

Some critics gripe that Fabian's method is too simplistic. For one, his recommendations are all or nothing: 100% in the market or 100% out. The one-size-fits-all system fails to consider clients' tolerance for risk. Fabian's claims of superior performance should also be taken with a chunk of salt: For the 10 years ended June 30, according to newsletter tracker Mark Hulbert, Fabian racked up a 282% gain. Not bad—but the S&P 500 gained 376%.

Fidelity isn't the only one with a beef against switch advisers. Stein Roe & Farnham restricted Fabian's customers from investing in its 15 funds after a sudden $50 million outflow nearly devastated its $250 million Capital Opportunities Fund in January. And the Vanguard Group limits customers to two or three switches a year.

Fabian's flock will hardly be left out in the cold, though. Several other funds are clamoring for the $200 million they will be moving out of Fidelity. Among them: Financial Programs Inc. and Rushmore Fund's Nova Portfolio. These funds are willing to ride out the ups and downs that Fabian's business brings—in exchange for the fees they'll earn. Says Daniel S. Ryczek, Nova's manager: "We'd love to have him on board." And Fidelity would gladly send him a ticket.

By Kathleen Kerwin in Huntington Beach, Calif., and Geoff Smith in Boston



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CHIEF EXECUTIVES

ERROLL DAVIS JR.: LIGHTING THE WAY

The utility president is the first black to head a BW 1000 company

DAVIS AS ROLE MODEL: "YOU HAVE TO ACCEPT THE RESPONSIBILITY"

Erroll B. Davis Jr. came right to the point. "I sit in a big, soft leather chair," he told a group of teenagers the other day. "I have a big office in a big building downtown. I run a company that does $600 million in business. I drive a nice car, and I've got some nice clothes." This was not the usual corporate rap. Davis, CEO of WPL Holdings Inc., based in Madison, Wis., was delivering a tough-love speech to 30 kids vexed by drugs, child abuse, and broken families. His aim was to show them the spoils of making the right choices.

Davis' life story is the stuff of motivational speeches, no matter the race. Starting from a working-class neighborhood in the haze of Pittsburgh's steel mills, he climbed to the top of one of the nation's largest utilities, the former Wisconsin Power & Light Co. But factor in his position as the first black to head a BUSINESS WEEK 1000 company, and Davis takes a job he never sought: role model. "At some point, you have to accept the responsibility," he says.

Davis, 46, has had plenty of other things to keep him busy since June, when he took over from James R. Underkofler. WPL's earnings dropped to $51.5 million last year from $57.9 million in 1988. State regulators recently ordered it to drop its rates because its coal costs had declined. And like some other utilities, WPL's credit rating got knocked down a notch this summer. Moody's Investors Service now ranks it Aa2.

Replacing Underkofler—practically synonymous with WPL in his 21 years as CEO—is no small feat, either. He was a fiery, demanding sort who would sometimes upbraid his employees in public. He was also a showman: His last annual meeting took place inside the Circus World Museum in nearby Baraboo.

Davis isn't nearly so flashy, which may have something to do with his own role model: his grandfather. A poor Georgia farmer who moved to Pittsburgh and became a chauffeur, he had a tremendous work ethic and "fantastic quiet strength," says Davis. His father was a small-time entrepreneur, owning a gas station and an insurance agency. After stints at Xerox and Ford, Davis joined Wisconsin Power & Light as vice-president for finance 12 years ago. He was named president in 1987. He and his wife, Elaine, have two children.

Although he is happy to serve as a role model for young blacks, Davis is not an activist. For the most part he chooses not to make an issue of his race. It has not interfered with his career, he says. However, Davis does recall a few uncomfortable incidents in which business people used racial epithets around him, once even to his face. "I've had to suffer my share of fools gladly," he says.

HARD-CHARGING. As president of WPL, Davis became a regular at the statehouse, pressing legislators to allow WPL to diversify. It now has a few nonenergy operations, including Heartland Development Corp., which builds moderate-income housing in WPL service areas. Another project, an environmental consulting business, brought in revenues of $30 million last year. Hungry for expansion, Davis is also eyeing other utilities.

Life in the spotlight hasn't always been comfortable. In 1988, Davis caught plenty of flak in the Wisconsin press when he challenged his home's tax assessment, claiming it should be lower because poorly insulated windows made its heating bills high. For WPL, which like most utilities promotes conservation, it was an embarrassing episode.

Davis takes some heat for his management of WPL, too. Some say his expansion plans and experimentation distract from encouraging conservation and providing cheap power. And he has raised eyebrows with his hard-charging style. This summer, WPL quietly fed electricity to some hotels under construction just inside the area served by rival Madison Gas & Electric Co. The state public service commission made him pull the plug. Davis acknowledges he was being a trifle aggressive. But he says the hotels straddled the border of his territory so he thought it was O. K.

But Davis didn't get where he is by wilting from controversy. To the contrary, he has applied a lesson he learned as part of the first black family in his Pittsburgh neighborhood: "If you are prepared to do well and want to do well, it can be an advantage to get noticed."

By David Greising in Madison, Wis.

THE DAVIS DOSSIER

CURRENT POSITION
President and CEO of WPL Holdings, Madison, Wis.

CAREER PATH
Joined Wisconsin Power & Light in 1978. Previously held finance jobs at Xerox (1973-78) and Ford (1969-73)

EDUCATION
MBA, University of Chicago, 1967; BS, electrical engineering, Carnegie Mellon, 1965

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[1]Source: IDC 1989 Terminal Census

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Planning

THE COMING TAX HIT: HOW TO MINIMIZE THE BRUISES

SAVING ON TAXES

With Washington wrangling so long over 1991 taxes, this has not been a good season to plan your personal fiscal affairs rationally. However, there is still time to consider ways to avoid a needlessly large tax bill for 1990. Basically, they involve "shifting"—accelerating deductions into 1990 and postponing income. Or vice versa.

Depending on whether your taxable income is low, middling, or high, your top rate will stay the same, go down, or go up in 1991. Also, "you have to consider the interaction between federal and state taxes and the alternative minimum tax," cautions Vincent Vaccaro, a Coopers & Lybrand partner. "There's no way you can do this on the back of an envelope."

BYE-BYE, BUBBLE. As a rule of thumb, "it would take an increase of five percentage points or more in your tax rate "to negate the advantage" of deferring income and thus keeping the tax on it an additional year, figures Frank O'Connell, tax partner with accountants Laventhol & Horwath. Under the compromise that cleared Congress on Oct. 27, ending the 33% "bubble" will bring a two-point rate decrease to many upscale taxpayers.

The bubble covers 1990 taxable income of $78,400 to $162,770 for joint filers and $47,050 to $97,620 for singles. For 1990 income above those cutoffs, the top rate drops back to 28%. But in 1991, the top marginal rate will be 31%, starting at $82,050 for joint filers and $49,200 for singles.

However, those pulling down six-figure incomes in 1991 are in for what amounts to a backdoor bubble. That's because the personal exemption, now $2,050, phases out from $150,000 to $275,000 of adjusted gross income (AGI) for a couple (for singles, $100,000 to $225,000). So more of their income will be taxable.

AGI of $100,000—unusually, it's the same for marrieds and singles alike—is also the starting point for an attack on itemized deductions. These get reduced by 3¢ of every dollar of AGI above the cutoff; a $175,000-a-year taxpayer will see the first $2,250 of deductions erased. Cutting back on charitable contributions won't help, because the plan was designed—under prodding from charities—to avoid a ceiling on such deductions.

The deduction loss is like a rate boost of nearly one point. The erosion of exemptions is akin to a hike of another point or so for an affluent family of four—confronting them with essentially a 33% marginal rate. Then, there's the hospital part of the Social Security payroll tax. You still pay 1.45%, as does your employer. But instead of paying it on a $51,300 wage base, you'll pay all the way up to $125,000.

CHRISTMAS BONUS. So, for many in the highest income ranges, postponing income loses its charm. "When I know my rate's going up, I know I want to accelerate income into this year," says Bill Goldberg of KPMG Peat Marwick in Houston. An alert employer can pay bonuses in December instead of January. This shouldn't come under question by the Internal Revenue Service, he adds, "as long as it's the company's call" on timing and not the employee's choice.

Deferral has the most impact for those who pay quarterly estimated taxes. You'll be within bounds if your 1991 payments (including withholding) equal 90% of what you'll owe for 1991, or 100% of your 1990 liability. When you reduce your 1990 income and tax, you may trim your 1991 quarterly payments accordingly. That gives you extra cash to invest all the way to 1991-return filing time in April, 1992.

If deferring income works for you, don't overlook its parallel ploy—bunching deductions into this year. Only the portion of your miscella

ɔus deductions that exceeds of AGI counts anymore. ɔp short of 2%, and they all to waste. So paying some luctible bills early—1991 ɔfessional dues, say, or tax-ısulting fees—might put ı over the 2% hurdle for)0. Result: some savings in ɛ year vs. none in either ar. Bunching medical bills,), might get you over their ling of 7.5% of AGI.

You're also allowed to pre- v one month's extra inter- on your mortgage, be- ıse the interest due on Jan. accrued in December. To ɔid a mismatch with the ɔrtgage company's IRS .tement for 1990, though, sure to send the January ɛck early enough for pro- ɔssing in December.

Before you do any shifting, ɛe the alternative minimum ɛ into account. The AMT ɔrks by adding back various luctions and tax-favored in- ne into your AGI. If 21% of ıt total is bigger than your

For many in high rackets, postponing ıcome won't pay off

ĸ calculated the regular ıy, that's what you pay. at's for 1990; the 1991 AMT ɛe will be a steeper 24%. So w's the time, says Ernst & ɔung's Bob Coplan, to see if u have enough elbow room take advantage of any ɔre preference items before arend without paying the ıT (joint filers start with a 0,000 exemption).

Many well-paid clients, ad- ɜers report, inadvertently gger the AMT—realizing too ɛe that they've brought it on eagerly exercising an in- ntive stock option or cheer- lly giving a much-appreciat- stock to a charity (page 6). Try, Coplan suggests, o walk right up to the AMT, ıt not into it."

Such a one-time event could ean you're already facing e AMT for this year, but not ɛxt. In some cases, accelerat- g income "may be wise," suggests Ernst & Young's *Tax-Saving Strategies* guide. That way, instead of being taxed at next year's higher AMT or regular rate, the income could be taxed at the current AMT rate of 21%—"probably the lowest rate you'll ever see," says Coplan.

MOONLIGHT SHELTER. If you have income from a sideline business, the tax-saving possibilities expand. The fees you receive for being a director or for after-hours consulting can be heavily sheltered. You get to write off outlays for office equipment, with up to $10,000 worth fully deductible in the year of purchase. A home office can mean deductions for a portion of your home's upkeep and maybe even auto expenses (page 162).

Moreover, self-employment income is your ticket into what Laventhol's O'Connell calls "the biggest shelter of all." That's a Keogh plan, a retirement vehicle similar to an Individual Retirement Account, only on a grander scale. As opposed to the IRA's limit of $2,000 per year, you can put a hefty 20% of your net self-employment income into a Keogh, up to $30,000. As long as you open the Keogh at a bank or brokerage house before yearend, you have until tax-filing time to divert the money into it—and out of your 1990 taxable-income stream.

There's one more yearend deadline that doesn't affect your income tax but could help your heirs: Each year, a couple can give up to $20,000 (a single, $10,000) to each child or other lucky recipient without incurring the gift tax and with a potential estate-tax saving later.

Finally, to wrap up less cosmic concerns, such as credit-card bills: Their last vestige of tax advantage—the deductibility of a mere 10% of their finance charges—disappears along with all other consumer interest at midnight on New Year's Eve. So pay off those balances now. But if Congress hasn't manhandled you too badly, you just might want to charge a celebration anyway. *Dick Janssen*

QUICK! SHOULD YOU ADJUST YOUR 1990 TAX WITHHOLDING?

Sure, it looks like too much of a dent already. But are you certain that you're having enough tax withheld from your paycheck? Unless your 1990 withholding is 90% of your 1990 tax, or no less than your 1989 tax, you could face a penalty. It's best to find out now, while there's still time to have an extra lump sum withheld from your December check.

To learn where you stand, all you need is your paycheck stubs for projecting 1990 salary and withholding totals, and a glance back at your Form 1040 for 1989. Update deductions, interest income, and the like, and turn on your calculator for a quick preview of what things will look like come Apr. 15. Who knows? It could be that you're overwithheld, and you may as well cut back so you'll have the use of that money long before a refund could come

Salary and other income _____

Deductions and adjustments _____

Exemptions ($2,050 each) _____

Taxable income _____

Withholding and estimated payments _____

Then, if you're married filing jointly, and your taxable income is

Over...	...but not over...	...you enter
$32,450	**$78,400**	$4,867.50
Plus 28% of the amount over $32,450		_____
Giving you total tax		_____
$78,400	**$162,770**	$17,733.50
Plus 33% of the amount over $78,400		_____
Giving you total tax		_____
$162,770		$45,575.60
Plus 28% of the amount over $162,770		_____
(A) Enter 5% of the amount over $162,770		_____
(B) Enter $574 multiplied by number of exemptions		_____
Enter (A) or (B), whichever is smaller		_____
Add the three figures in the final column to get total tax		_____

DATA INTERNAL REVENUE SERVICE, COOPERS & LYBRAND, BW

Investing

PLAYING THE MARKET IN A TAX-WISE WAY

SAVING ON TAXES

Many investors will be glad to close the books on 1990. But unless they first sort through their winners and losers, they could miss some deductions.

First, up to $3,000 of net red ink from all 1990 securities dealings is deductible against ordinary income (and you can apply any excess in future years). Also, if you have soured on a stock, "you may want to sell it and pull down a loss before yearend to offset a realized gain," Sam Deutscher of accountants Israeloff Trattner in Valley Stream, N.Y., suggests.

So don't blow it by saying: "Sell half my Widget Co." The IRS assumes you are selling your oldest shares first. Say you bought 100 shares at 30 in 1988 and 100 more in '89 at 40. Now, Widget is down to 20. Make sure your broker sells the 1989 shares: You'll get double the deduction.

'WASH SALE.' All such buy-or-sell advice assumes the move makes economic sense, which should always outweigh the tax considerations, say advisers. If you still believe in a slumping stock but can't resist selling it for a deductible loss in 1990, you can always buy the stock back again in 1991. Note, however, that the "wash sale" rule wipes out the loss deduction unless there are at least 31 days between the sale and the purchase.

Despite the hot political battle, there's been no big change in the tax on capital gains. The rate in 1990 is whatever you'll pay on ordinary taxable income—15%, 28%, or 33%. For 1991, the top capital gains rate will be 28%.

If you're in the 33% tax bracket for 1990, and you're not afraid your stock will plunge in the interim, it might make sense to delay a sale until 1991.

Or, if you're afraid the stock will fall out of bed before then, you can "sell short against the box"—borrow more of the stock and sell it this year. Nailing down the current price assures you a profit. But no taxable gain is recognized until January, when you close out the short sale by delivering your original shares.

Should you be looking for still more 1990 deductions, don't overlook any limited partnerships that might be in your portfolio. Under the Tax Reform Act of 1986, you may have been unable to use their passive losses. But you can deduct them in the year you unload the tax shelter. *D.*

Contributions

CHARITABLE GIVING THAT'S DONOR-FRIENDLY

As a mailbox full of plaintive appeals attests, charitable contributions take on a special urgency when the year nears a close. But if you're planning to benefit from any major donations in 1990, getting in under the wire isn't all that matters.

Securities are often a fitting gift for charities. But the performance of a stock dictates the proper way to donate it. If the stock has come to look hopeless, sell it first so you have a capital loss to deduct. Then donate the cash proceeds to the charity for another deduction.

But what if the stock you have in mind has been a winner? This time, don't sell first. By giving the shares themselves to the charity, you avoid any tax on the gain. Say you bought 500 shares at 10 and donate them when they're selling at 40. You're entitled to deduct not just your $5,000 cost but $20,000, the fair market value of the shares.

Of course, snags can arise. Make sure you held the stock for over one year. Otherwise, you get to deduct only the $5,000 cost. And because the $20,000 gift includes $15,000 of untaxed appreciation, deducting it could trigger the alternative minimum tax, depending on how all such preference items compare with your income. For 1991 only, giving appreciated art to a museum will be free of AMT.

DO IT NOW. Stock certificates should be endorsed and delivered to the charity before yearend. If you are giving book-entry shares through your broker, don't wait until the last minute to donate; the deduction isn't yours until the transfer shows up on the corporation's books.

As for good old cash donations: It might be more advantageous to charge your gift on a credit card, as many groups now allow you to do. While checks must be dated and mailed no later than Dec. 31, contributions by credit card count even if you don't pay the bill until next year.

Keep a careful tally of all your gifts. Should the sum of contributions top 20% of your adjusted gross income, you run into a maze of deduction limits that you'll need a CPA or lawyer to steer you through. But overall, if there's anything better than giving, it's giving and receiving a tax break, too. *D.*

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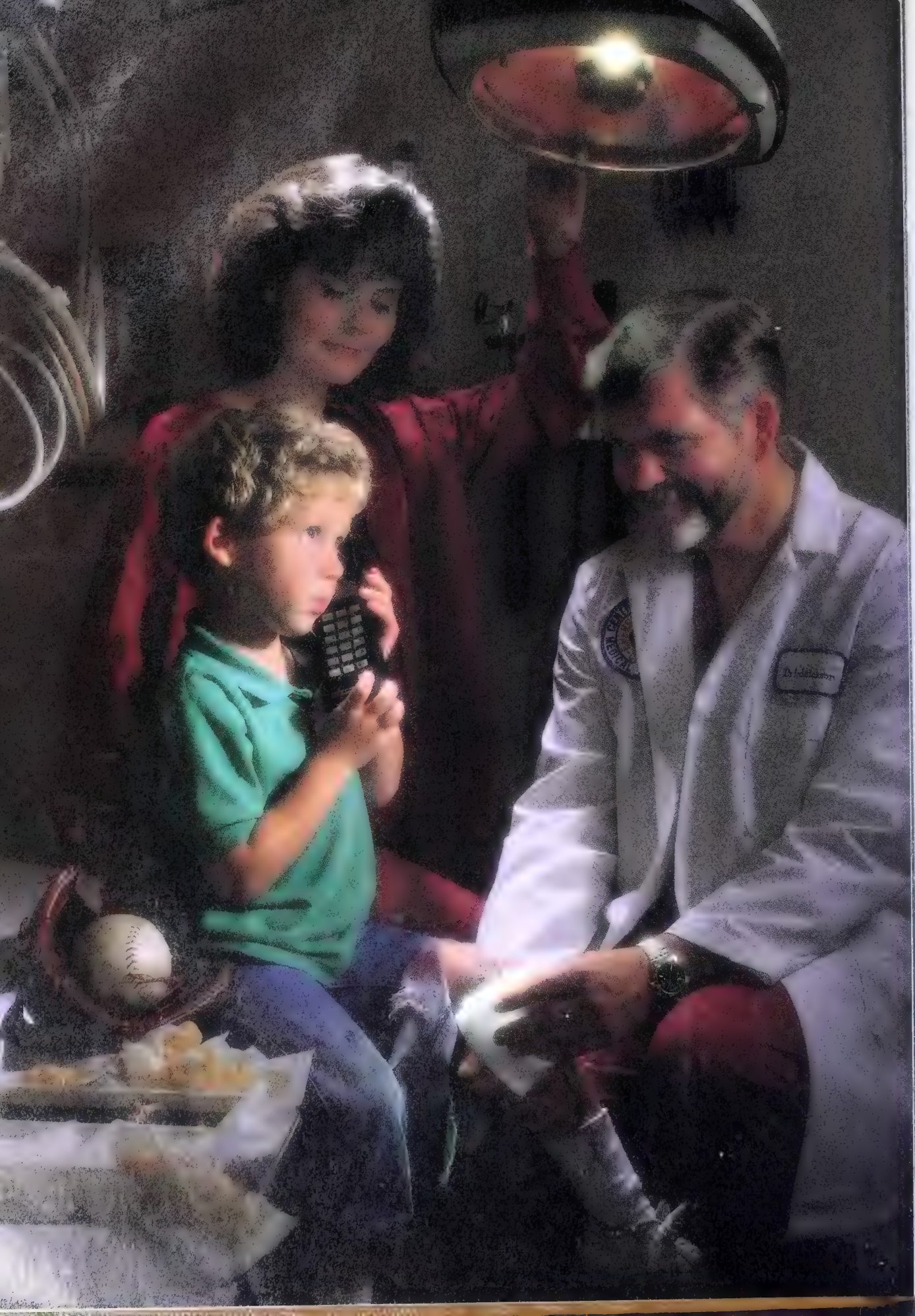

HOW FUJITSU HELPS A BIG HOSPITAL STAY SMALL.

Saint Cloud Hospital in central Minnesota is a regional medical center serving a population of more than 425,000 in a ten-county area covering more than 7,500 square miles. It's a highly progressive, rapidly expanding institution with hundreds of doctors, comprehensive services, and an attitude of intense human concern. Patients are never numbers, they're people. And they are treated like people. For all its size, Saint Cloud Hospital still feels 'small'.

CARING INTIMACY

The hospital has worked very hard to ensure an environment of caring intimacy, developing many special programs and procedures and investing heavily in technologies that free its people to focus on people.

One current investment is in hundreds of portable and mobile cellular telephones to give the hospital instant two-way communications with its on-call staff. The phones have put doctors and nurses in touch as never before, and have begun to find a wide range of unexpected uses for themselves —like letting emergency room patients reassure loved ones directly from a moving hospital gurney.

SELECTED FUJITSU

Saint Cloud Hospital, working with its service provider, United States Cellular, studied a variety of cellular telephone brands before it finally settled on Fujitsu. It chose Fujitsu not only for the quality of its telephones but for the quality of the company behind them. Fujitsu is one of the world's largest computer and communications companies—a high-tech powerhouse that's a major force in the global information revolution. With 115,000 employees, projects completed in a hundred countries, and manufacturing facilities across the U.S.A., it's a company that's many things to many different people. To the people at Saint Cloud Hospital, it's a giant that's helping them stay small.

Gary Gibson of Fujitsu talks with Bill Becker of Saint Cloud Hospital and Joe Salaski of United States Cellular Mobile Telephone Network. United States Cellular, a nationwide carrier which operates the cellular network in St. Cloud, Minnesota, strongly recommends Fujitsu phones. For information call Fujitsu at (214) 690-6000.

FUJITSU

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Software

MONEY MANAGEMENT, PC-STYLE

In less than two months, it will be time to draw up New Year's resolutions. If you've been thinking about using a personal computer to bring organization to your financial affairs—and uncover ways to ease the IRS' bite—there has never been a better time to get on with the job.

SAVING ON TAXES

Today's tax-related software can do a lot more than fill out IRS forms. Many personal-finance programs have tax savvy that's valuable in shaping your investment and savings strategies. A few can offer advice on estate taxes and insurance. And since all will share data with one or more tax-preparation programs, they should make tax time a breeze.

BUG-INFESTED. But getting up to speed with these programs can be a real pain for those still practicing "shoebox" accounting. The software forces you to think meticulously about your financial affairs. Categorizing expenses and income sources is just the beginning. Figure on the better part of a day to get acquainted with even a simple program—and a weekend to scratch the surface of something as rich in features as Managing Your Money or WealthBuilder.

Until finance whiz Andrew Tobias helped put Managing Your Money together, Dollars & Sense dominated the personal-finance scene. But soon after MYM's 1984 debut from Meca Ventures, D&S began losing favor. It wasn't just the competition: Some notorious bugs went uncorrected too long. Last May, D&S was, in effect sold to Software Toolworks, which promises a debugged upgrade shortly.

A year after MYM, another challenger, Quicken, blew into the IBM-type PC market, and it has been winning raves ever since. Developed by Intuit, Quicken is remarkably, well, intuitive: quick to learn and easy to use. You hardly need to refer to its manual. Quicken's attractive price-performance ratio plus its versatility in exchanging data with most tax-preparation programs have made it the top-selling PC finance package.

But Quicken isn't the ticket for people with large or active stock portfolios—not unless they manage their portfolios with a separate program, such as Charles Schwab's Equalizer, or (especially) WealthBuilder. Unveiled last year by *Money* magazine and Reality Technologies, WealthBuilder can link up to Quicken and "import" budget data.

WealthBuilder really shines when it comes to financial planning. You tell it your long-term goals and preferred investment strategy, from ultraconservative to highly aggressive. The software then helps you decide how much to invest in the market and guides your selection of stocks and bonds. It also advises you on techniques to minimize your tax bill. To see where you stand at any point, WealthBuilder will paint a graph on your PC's screen and plot your portfolio's probable future value under various economic scenarios.

The Quicken-WealthBuilder team marks the first real challenge to MYM's Cadilla prestige. In fact, if the ne edition of MYM—version due in January—weren't suc a dramatic improvement, th duo would at least share tc billing with MYM.

MYM has long been criticize for having a quirky, som times counterintuitive inte face (the menus and con mands used to navigate th program's various modules Happily, the interface ha been totally revamped for ve sion 7. Now you can appre ate even more wha really di tinguishes MYM: its all-i clusive integra tion. Virtually e erything you cou wish for in person finance is just a fe keystrokes away—th major features of Quicke and WealthBuilder rolle into one astute packag It also hooks up with Meca TaxCut, the best tax-prepar tion package around.

No matter which program you pick, the main thing is get started. Even if you lik MYM's integrated approac and figure you should wa for version 7, don't put it of Buy the current version ar set it up. You'll be able upgrade for $50, and yc won't lose any work: All you data will get transferred i tact. Then, when 1991 rol around, you'll be ready keep more of your har earned money and get ric faster.

Otis Po

REVIEWING SELECTED SOFTWARE

Name / List price	Budgeting	Check writing	Tax filing	Insurance planner	Portfolio manager	Net worth tracker	Ease of learning	Ease of use	Documentation	Overall rating
	FEATURES ●=very good, ○=okay						SCORECARD			
MANAGING YOUR MONEY $220	●	●	●	●	●	●	B	B	A	A
QUICKEN $60	●	●	*	-	-	○	A	A	B	A
WEALTHBUILDER $250	**	**	-	●	●	●	B	B	B	B
MONEYCOUNTS $35	●	●	●	***	-	○	B	B	B	B
DOLLARS & SENSE $180	●	●	-	-	●	○	B	C	B	C

*Almost all tax-preparation software will "import" data from Quicken **Links to Quicken for these functions ***Available in MoneyPlans

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Home

HOME IS WHERE THE WRITE-OFF IS—AGAIN

SAVING ON TAXES

Lyndon Johnson once tweaked Washington reporters by describing their dream house: A lobbyist would live next door, and the basement would be a home office. The former would provide liquor, and the latter would generate lush income-tax write-offs. For in LBJ's day, recalls a tax lawyer, "anyone with a back den would put a typewriter in it and write off half the house as a business expense."

Well, LBJ's day has passed, Congress has long since tightened the rules, and legions of taxpayers have learned that home-office deductions "trigger an audit more than anything else," notes tax adviser John Erb at DeTeffe Capital Management in Alexandria, Va. Still, the potential for taking such deductions is widening again—at least for taxpayers who are willing to confront the IRS in court.

That's because of a breakthrough decision by the U. S. Tax Court last January, in a case brought by a Washington (D. C.) anesthesiologist. Even though Dr. Nader Soliman worked in three Washington-area hospitals, the tax court ruled that the home office in which he did his billing, scheduling, and other necessary paperwork was his principal place of business.

GOING PLACES. That allows you to deduct direct outlays for office equipment and repairs, plus such indirect expenses as the space's pro rata share of utilities, real estate taxes, and home insurance, says a report from tax publishers Research Institute of America (RIA). Moreover, the court decided, Soliman's cost of getting to and from hospitals was deductible local travel between business places, not nondeductible commuting.

The travel involved a Buick when Soliman started tangling with the IRS and a Mercedes the next year. These were big-ticket items for him and for the IRS, too, which doesn't want to see a proliferation of such deductions. So strongly did the IRS feel that it took the unusual step of "nonacquiescence," declaring that it wouldn't follow the tax court ruling. Then, last July, the IRS asked the U. S. Court of Appeals in Richmond, Va., to overturn the decision of the tax court.

Meanwhile, however, the tax court's ruling "is still the law of the land," says David Sokolow, an associate in McGuffie, Greif, Whitney & Handal, the Washington law firm that is representing Soliman. So "a moderately aggressive taxpayer would take the risk" of claiming such deductions and having to defend the action in court later, observes Erb.

The rules require that you alert the IRS on your return when you're relying on a disputed case, so you'd better be sure that all your tax affairs are "on solid ground," cautions attorney Robert Reetz of Austin, Tex., a business-expense specialist for Bender's Federal Tax Service. Eventually, he adds, "I have no doubt that Soliman will stand on appeal, that the government will lose."

Among those who might benefit from following in Dr. Soliman's footsteps, according to the RIA, are lawyers, accountants, consultants, teachers, architects, and creative artists who have no other practical place to do the office chores that their work requires. In one case, a court even agreed with a laundromat owner that there was good reason to do paperwork at home instead of at work.

"The key," says Sokolow, "is performing a service outside of the home while not being provided an office by your employer," which can be a client or customer. Also required, he adds, is that you have "office-type functions that must be performed, such as billing, contacting clients—all the routine administrative functions that are needed to keep a business going."

In tightening up the law, says Sokolow, Congress meant to stamp out home-office deductions for "people like me"—those whose regular employer provides office space. Merely carrying a briefcase of work home would no longer be enough. To be deductible, the home office must be used only for business. The revenue agent will want such evidence as a desk and filing units in a room untainted by signs of personal use—no bed, toys, or TV, not even a personal checkbook. These "crazy rules," says Sokolow, apply only if the office is in your home and not in a different structure or different apartment.

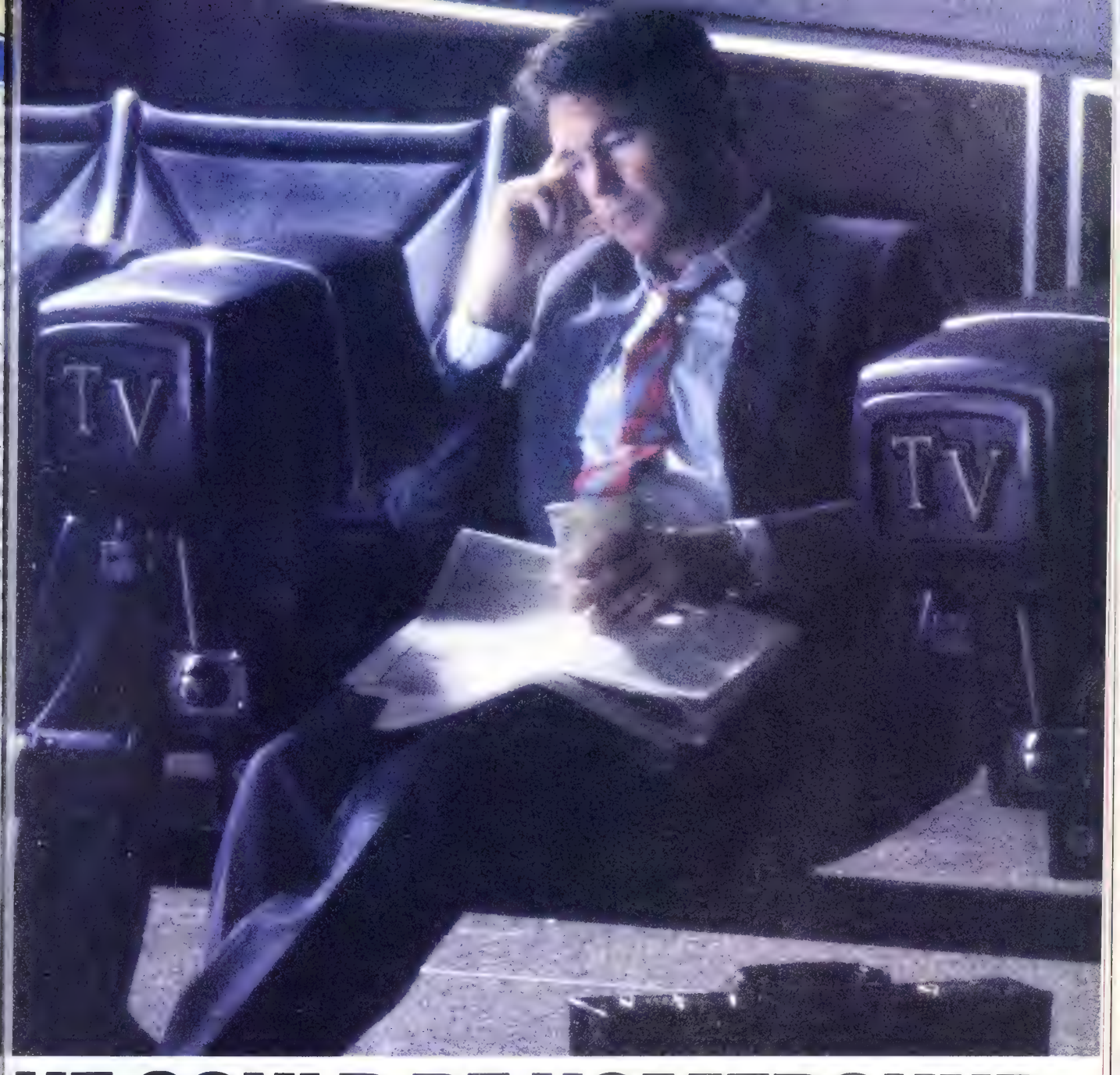
That leaves the basic tax strategy question: Is it worse to pass up a tidy deduction or to get into a messy fight with the IRS? Only taxpayers with strong stomachs—and their accountants—can say for sure. *D.*

Worth Noting

■ **MOVING TARGET.** If you've changed your address since you last filed a 1040, you risk missing mail and incurring penalties unless you notify the IRS directly and properly of the change. The surest way is to use the new form 8822.

■ **FACE VALUE.** When a return goes astray, the IRS normally wants written proof it was mailed on time. In one case, testimony from the postmistress of a tiny, one-person post office was enough: She could remember details of the tax lawyer's visit, according to the Research Institute of America.

■ **FINAL TIP.** Tax advice in the or other publications is generic. Take it only as a source of ideas to discuss with your tax adviser.



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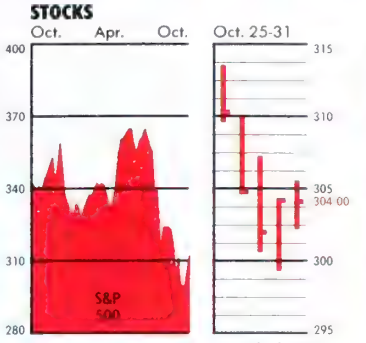
nvestment Figures of the Week

MENTARY

cs fell this week as war talk ated, and the price of oil ced up again to the $35-a-el range. Despite some easing ie Fed, bonds remained in the rums and could give no lift to tock market. Still, the techni-ndicators point to a snapback ocks. Look, in particular, at /ickers sell/buy ratio of insid-ntiment, which stands at , its best reading since 1988. means that insiders are buy-almost twice as much stock as are unloading.

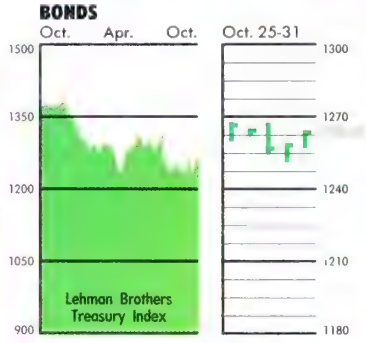
STOCKS



52-week change **–10.9%**

1-week change **–2.8%**

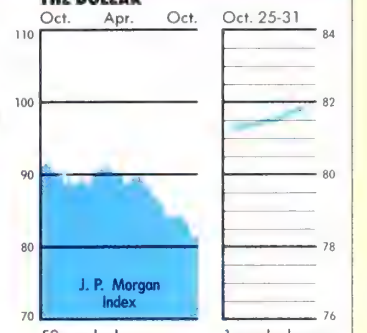
BONDS



52-week change **–7.9%**

1-week change **0.0%**

THE DOLLAR



52-week change **–10.5%**

1-week change **+0.6%**

ARKET ANALYSIS

. STOCKS	Latest	% change Week	% change 52-week
/ JONES INDUSTRIALS	2442.3	–2.5	–7.7
COMPANIES (Russell 1000)	156.6	–2.7	–12.9
LL COMPANIES (Russell 2000)	118.8	–2.8	–29.2
COMPANIES (Russell 3000)	165.3	–2.7	–13.9

EIGN STOCKS	Latest	% change (local currency) Week	52-week
DON (FINANCIAL TIMES 100)	2050.3	–2.9	–5.1
YO (NIKKEI INDEX)	25,194.1	1.3	–29.2
ONTO (TSE COMPOSITE)	3081.3	–1.3	–21.7

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.4%	7.5%	8.1%
30-YEAR TREASURY BOND YIELD	8.8%	8.8%	7.9%
S&P 500 DIVIDEND YIELD	4.0%	3.8%	3.2%
S&P 500 PRICE/EARNINGS RATIO	13.6	13.8	13.8

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	337.5	338.5	Negative
Stocks above 26-week moving average	12.2%	14.1%	Positive
Speculative sentiment: Put/call ratio	0.64	0.46	Positive
Insider sentiment: Vickers sell/buy ratio	0.51	0.52	Positive

NDUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

R-WEEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
EALTH CARE SERVICES	16.5	58.5	MANOR CARE	18.7	25.7	15⅞
LECTRIC POWER	6.3	–0.1	TEXAS UTILITIES	13.9	12.2	37⅞
OSMETICS	5.7	18.3	ALBERTO-CULVER	18.0	16.7	25⅜
NSURANCE BROKERS	4.9	–22.1	ALEXANDER & ALEXANDER	8.3	–38.7	19⅝
OUSEHOLD PRODUCTS	3.6	19.7	UNILEVER N. V.	7.0	19.5	85¾
R-WEEK LAGGARDS	**% change 4-week**	**52-week**	**Weakest stock in group**	**% change 4-week**	**52-week**	**Price**
AVINGS AND LOANS	–25.3	–43.7	GOLDEN WEST FINANCIAL	–28.3	–31.4	17¾
ERSONAL LOANS	–21.4	–51.7	HOUSEHOLD INTERNATIONAL	–29.3	–63.1	20½
ACHINE TOOLS	–20.5	–43.3	CROSS & TRECKER	–43.2	–63.2	2⅝
NSTRUMENTATION	–13.7	–42.9	HEWLETT-PACKARD	–15.5	–46.1	26⅝
ETALS	–13.5	–17.9	CYPRUS MINERALS	–25.5	–39.7	14⅝

MUTUAL FUNDS

MORNINGSTAR INC.

ADERS

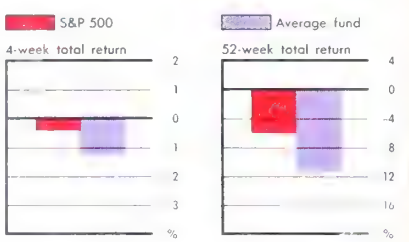
r-week total return	%
JAPAN	28.6
DFA JAPANESE SMALL COMPANY	27.2
NOMURA PACIFIC BASIN	20.3

-week total return	%
EQUITY STRATEGIES	41.2
FIDELITY SELECT ENERGY SERVICE	33.4
FIDELITY SELECT BIOTECHNOLOGY	31.0

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–27.6
BENHAM GOLD EQUITIES INDEX	–19.6
RUSHMORE PRECIOUS METALS INDEX PLUS	–19.3

52-week total return	%
PRUDENT SPECULATOR LEVERAGED	–46.6
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–44.4
SHERMAN DEAN	–43.5



RELATIVE PORTFOLIOS

DATA RESOURCES INC.

llar amounts present the present lue of $10,000 rested one year o in each portfolio

centages indicate e-day total returns

Money market fund	Gold	Treasury bonds	U. S. stocks	Foreign stocks
$10,691	**$10,031**	**$9,894**	**$8,984**	**$8,967**
+0.14%	+0.57%	–0.52%	–2.66%	–2.45%

data on this page are as of market close Wednesday, Oct. 31, 1990, unless otherwise indicated. ustry groups include S&P 500 companies only; performance and share prices are as of market close Oct. 30. Mutual fund returns are as of Oct. 26. Relative portfolios are valued as of Oct. 30. A more detailed explanation of this page is available on request.

CONGRESS DUCKS THE DIRTY WORK AGAIN

The $493 billion deficit-reduction deal that Congress cobbled together before scurrying out of town to electioneer falls far short of putting the U. S. government on a sound fiscal footing. It is a semantic fraud because it doesn't even "cut" the deficit. These "cuts" mean only that spending won't increase as fast as was previously planned.

The major shock is Congress' almost total failure to reduce domestic spending (page 43). The Agriculture Committees trimmed farm payments by $13 billion over five years, a 25% cut. If these savings are realized, it would be a big step toward a more rational agriculture policy.

On defense, the Hill gets credit for a good beginning. Neither Congress nor the Pentagon has made all the key decisions to reflect the changes that have swept the world in the past year. But the $64 billion in spending reductions through 1993 represent a good start on planning for the needs of the post-cold-war era.

Elsewhere, however, the record is disgraceful. The summiteers decided early on that Social Security was totally off limits. A voters' backlash against the original summit agreement on medicare cuts caused a pell-mell retreat. In the final deal, medicare—which was expected to cost more than $600 billion over the next five years—will be pared by just $42.5 billion. And beneficiaries will pay just $10 billion of that in higher out-of-pocket costs. The rest will be squeezed from doctors and hospitals. And except for this and some minor changes in veterans' benefits, the elderly—who account for over 28% of federal spending—are spare the pain of deficit reduction.

Aside from medicare and farm programs, domestic spend ing was cut by a derisory $42.5 billion over five years. An even that figure is misleading. More than half of thes "cuts" are not reduced spending but rather increased fee for a broad variety of federal services. Not one domesti spending program was found worthy of being killed. Shock ingly, Congress found room for a $20 billion boost in discre tionary spending in the current fiscal year.

Lawmakers did better with taxes. The $146 billion in ta hikes were crafted to spread the pain broadly, with th burden tilted toward those who can best afford it. It woul have been better for the integrity and clarity of the tax cod if Congress and the White House had explicitly raised rate on the wealthiest taxpayers rather than devised a series o deduction limits and exemption phase-outs that have th effect of higher rates at a tremendous cost in complexity Sadly, Capitol Hill couldn't muster the courage for mor than a nickel-a-gallon increase in gasoline taxes at a tim when the U. S. desperately needs to encourage energy cor servation.

Some of the money will go to highways and other critica infrastructure needs. Some will go to North Dakota to hono Lawrence Welk. It's pork-barrel time as usual, and as lon as such thinking prevails on Capitol Hill, the deficit wi never be brought under control.

FREE TRADE WITH MEXICO? SET A SAFETY NET

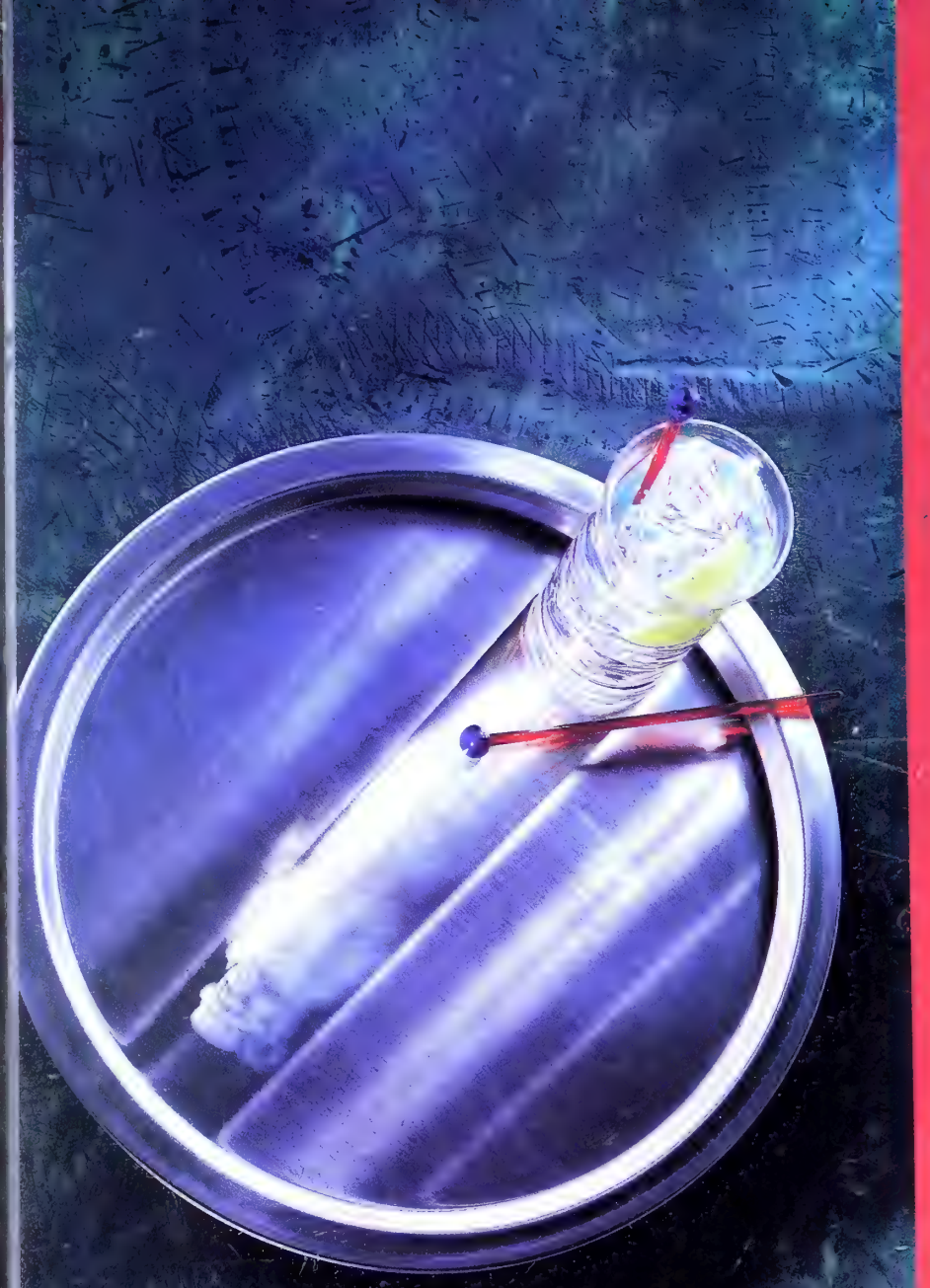
The free-trade agreement with Mexico that President Bush is pushing is bold but risky. Bush and Mexican President Salinas are betting that it will dramatically spur growth in both countries (page 102). But it would be an unprecedented linkage between an advanced industrial economy and a developing country with the potential to dislocate industries and workers on a massive scale in the U. S.

That is not the case with Canada, which already has a free-trade pact with the U. S. With the addition of 86 million Mexicans, the three countries would form the world's biggest economic bloc, with a combined gross national product of $5.9 trillion. Trade and financial flows could touch off a decade or more of rapid economic growth fueled by a surge of investments to restructure industry on a continental scale and tap underutilized pools of labor, mostly in Mexico.

That's the good news. The bad news is that because Mexico and the U. S. have such disparate per-capita incomes—only $2,300 in Mexico, vs. $21,000 in the U. S—investment and jobs are going to move south of the border. While free trade should boost real income, particularly in Mexico, many individual American workers and communities could see their livelihoods fade away as competing industries from textiles to auto parts expand rapidly in Mexico. Th large, fast-growing, low-wage Mexican labor force will mea that opening the U. S.' southern border to free trade wi cause more severe industrial strains than the opening to th north, where Canadian wages are close to U. S. levels an the labor force only 10% of that of the U. S.

To ease such strains, trade barriers with Mexico should b lowered in stages over a longer period than the 10 years o the U. S.-Canada pact. More important, the U. S. must pro vide effective retraining and relocation help for displace workers. So-called "trade adjustment assistance" in the pas was expensive, yet it didn't help workers and communitie hurt by trade concessions much. Instead, Washington coul enlist prospective employers to supply the training. The U. S will pay an unacceptably high social cost for the gains fron freer trade if displaced workers end up on unemployment o in low-skilled, low-productivity jobs.

Without a strong safety net, it's probable that any free trade agreement with Mexico would be rejected by Con gress—and rightly so. To avoid such a setback, the Bus Administration must act to ensure that free trade help resolve, not worsen, the stresses in U. S. society.



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SINESS WEEK
30 November 19

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LOSING GROUND

GOP losses in Congress, statehouse setbacks, and internal party strife are eroding George Bush's authority—and his ability to lead the nation

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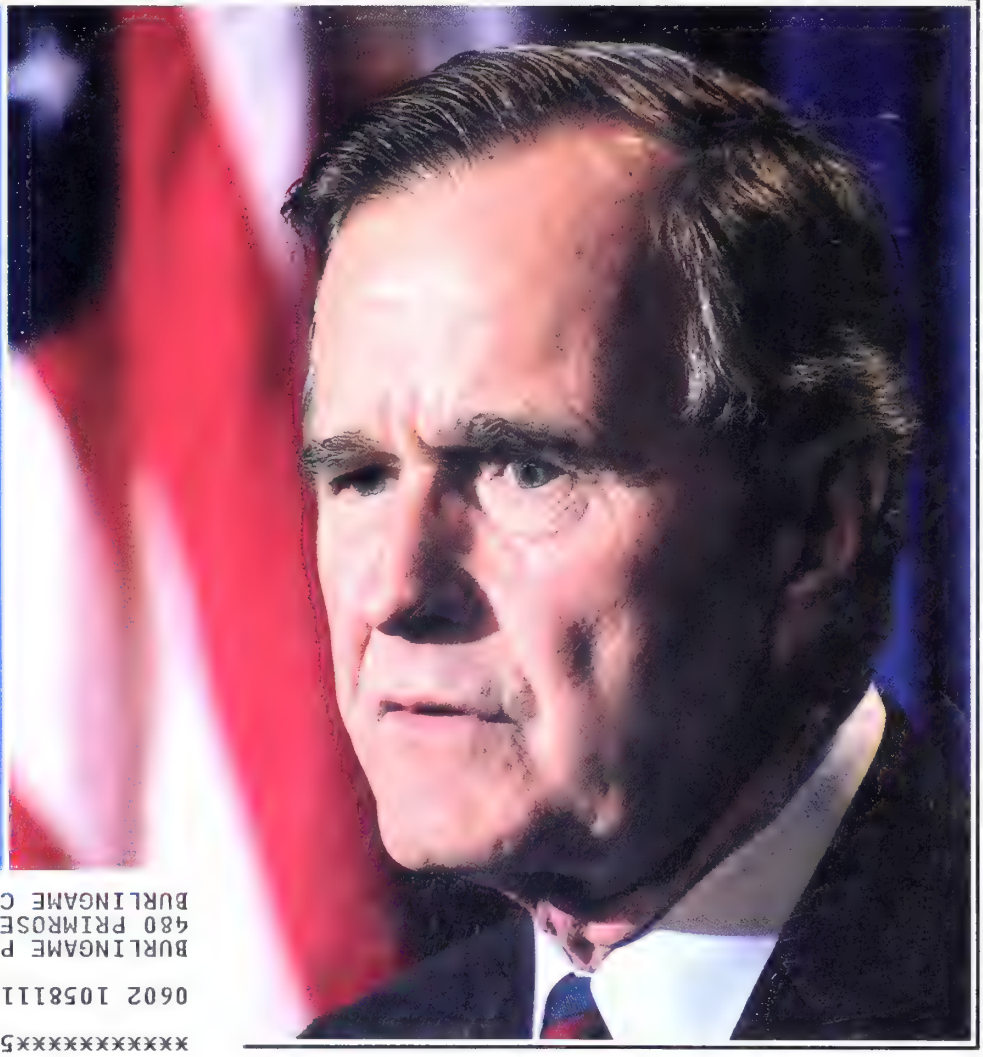

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afford a Macintosh, whic

This is all of them. From left to right: The new Macintosh Classic, the well-established Macintosh SE 30, the Macintosh Portable, the new Macintosh LC, the new Maci

In 1984, Apple introduced the first Macintosh® on the simple premise that people shouldn't have to learn to work with computers.

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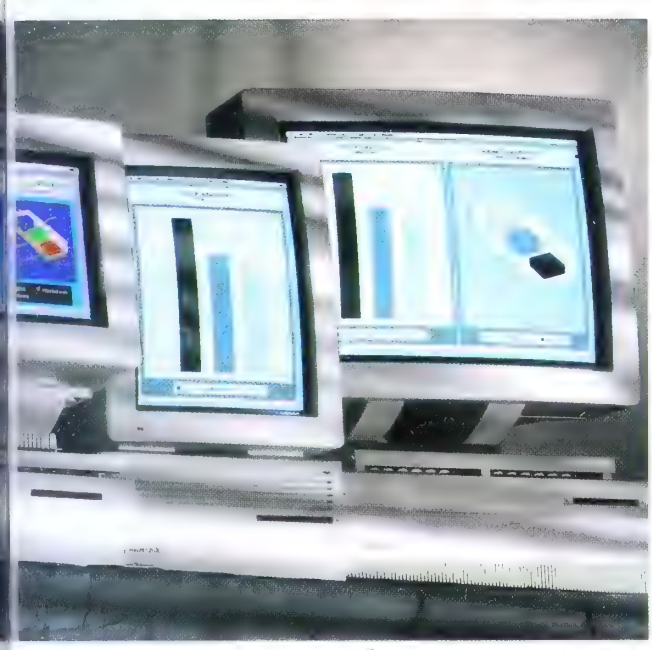
It has everything that makes a Macintosh a Macintosh. Built-in networking. A SuperDrive™ disk drive, which reads both Macintosh and MS-DOS files. And a $999* price that includes the built-in monitor, 1MB of RAM, keyboard, mouse, and system software. The 40MB hard disk is optional. Its processor is an 8 MHz 68000 chip. And it outperforms even its popular predecessor, the Mac® SE.

rybody can
one should you afford?



the Macintosh IIci, and the Macintosh IIfx. Have we left anybody out?

The Macintosh LC.

The new, low-cost Macintosh LC introduces quisite Macintosh color and graphics to a wider orld. With its 16 MHz 68020 processor, it runs all e thousands of Macintosh programs at impressive eed. And, with an optional Apple® IIe Card, it runs ousands more Apple II applications as well. The acintosh LC expands by adding a card to its stan- rd slot. A 40MB internal hard drive is standard.

A built-in video chip runs either an Apple mono- rome or low-cost color monitor–without adding video card. And the Macintosh LC, like the Mac IIsi, en lets you record your voice and other sounds to the computer. Which will soon make voice- notated software a standard Macintosh feature.

The Macintosh IIsi.

Running a 20 MHz 68030 microprocessor, the Macintosh IIsi delivers serious number-crunching at the most attractive possible price.

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NUMBER 3188

BusinessWeek

NOVEMBER 19,1990

SIS, BOOM, BUST: PRESIDENTIAL COACHING WASN'T MUCH HELP TO RUDY BOSCHWITZ, MINNESOTA'S INCUMBENT SENATOR

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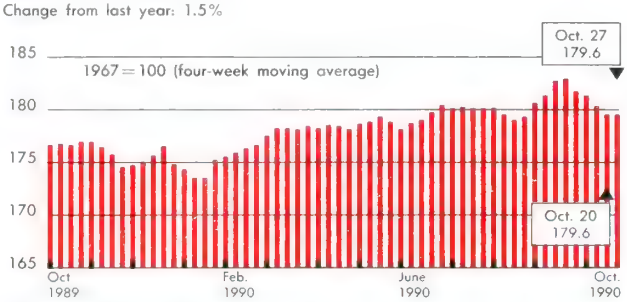
BusinessWeek Index

PRODUCTION

Change from last week: 0.0%
Change from last year: 1.5%

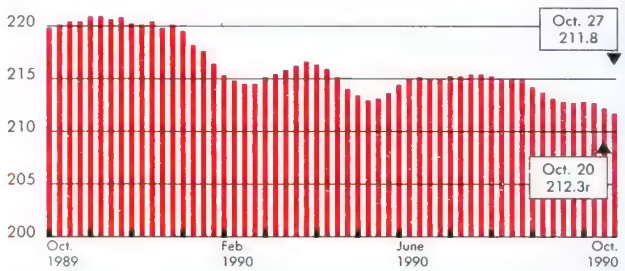


The production index was unchanged for the week ended Oct. 27. On a seasonally adjusted basis, output of autos increased sharply, and rail-freight traffic, coal, paper, and truck production advanced as well. Paperboard, lumber, steel, and crude-oil refining output declined. Electric-power output was unchanged for the week. Before calculation of the four-week moving average, the index increased to 179.2, from 178.3 in the previous week.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: –0.2%
Change from last year: –3.9%



The leading index dropped during the week ended Oct. 27 as the index' decline continues to signal a downturn. For the latest week, growth rates in materials prices, M2, and real estate loans were all down. On the positive side, stock prices posted a large gain, bond yields were lower, and the number of business failures was down slightly. Prior to calculation of the four-week moving average, the index also slipped, to 210.4, from 211.3 in the week before.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (11/3) thous. of net tons	1,880	1,839 #	4.7
AUTOS (11/3) units	146,037	146,927r #	1.3
TRUCKS (11/3) units	77,593	78,269r #	–2.2
ELECTRIC POWER (11/3) millions of kilowatt-hours	50,897	51,050 #	1.6
CRUDE-OIL REFINING (11/3) thous. of bbl./day	12,948	12,604 #	–2.7
COAL (10/27) thous. of net tons	21,497 #	20,956	5.9
PAPERBOARD (10/27) thous. of tons	728.7 #	758.9r	–2.2
PAPER (10/27) thous. of tons	776.0 #	757.0r	3.7
LUMBER (10/27) millions of ft.	459.6 #	469.4	–14.9
RAIL FREIGHT (10/27) billions of ton-miles	21.6 #	21.2	9.6

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (11/7)	128	129	143
GERMAN MARK (11/7)	1.48	1.52	1.85
BRITISH POUND (11/7)	1.97	1.95	1.58
FRENCH FRANC (11/7)	4.98	5.08	6.28
CANADIAN DOLLAR (11/7)	1.16	1.17	1.17
SWISS FRANC (11/7)	1.25	1.28	1.63
MEXICAN PESO (11/7)[3]	2,923	2,920	2,633

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (11/7) $/troy oz.	385.000	379.500	0.5
STEEL SCRAP (11/6) # 1 heavy, $/ton	107.00	110.50	8.6
FOODSTUFFS (11/5) index, 1967 = 100	211.1	211.6	–1.8
COPPER (11/3) ¢/lb.	122.0	131.7	1.3
ALUMINUM (11/3) ¢/lb.	80.0	81.8	5.5
WHEAT (11/3) # 2 hard, $/bu.	2.80	2.79	–34.4
COTTON (11/3) strict low middling 1-1/16 in., ¢/lb.	71.62	71.14	1.6

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (11/2) S&P 500	305.76	310.92	–9.7
CORPORATE BOND YIELD, Aaa (11/2)	9.47%	9.45%	6.3
INDUSTRIAL MATERIALS PRICES (11/2)	105.2	104.9	–1.2
BUSINESS FAILURES (10/26)	317	326	38.4
REAL ESTATE LOANS (10/24) billions	$382.6	$382.9	8.7
MONEY SUPPLY, M2 (10/22) billions	$3,338.6	$3,338.4r	5.0
INITIAL CLAIMS, UNEMPLOYMENT (10/20) thous.	454	421	25.4

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
EMPLOYMENT, CIVILIAN, MILLIONS, (Oct.)	117.7	117.9	0.1
UNEMPLOYMENT RATE, CIVILIAN (Oct.)	5.7%	5.7%	7.5
12 LEADING INDICATORS COMPOSITE (Sept.) index	143.3	144.4	–1.1
CONSTR. SPENDING (Sept.) annual rate, billions	$428.7	$441.1	–1.1

Sources: BLS, Commerce Dept., Census Bureau

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (10/22)	$818.8	$819.2r	3.8
BANKS' BUSINESS LOANS (10/24)	318.1	317.7r	–0.6
FREE RESERVES (10/31)	263	634r	–76.2
NONFINANCIAL COMMERCIAL PAPER (10/24)	155.5	159.0	20.9

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (11/6)	7.89%	7.84%	8.69%
PRIME (11/7)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (11/6)	7.86	7.84	8.50
CERTIFICATES OF DEPOSIT 3-MONTH (11/7)	7.98	7.96	8.48
EURODOLLAR 3-MONTH (10/31)	7.93	8.04	8.56

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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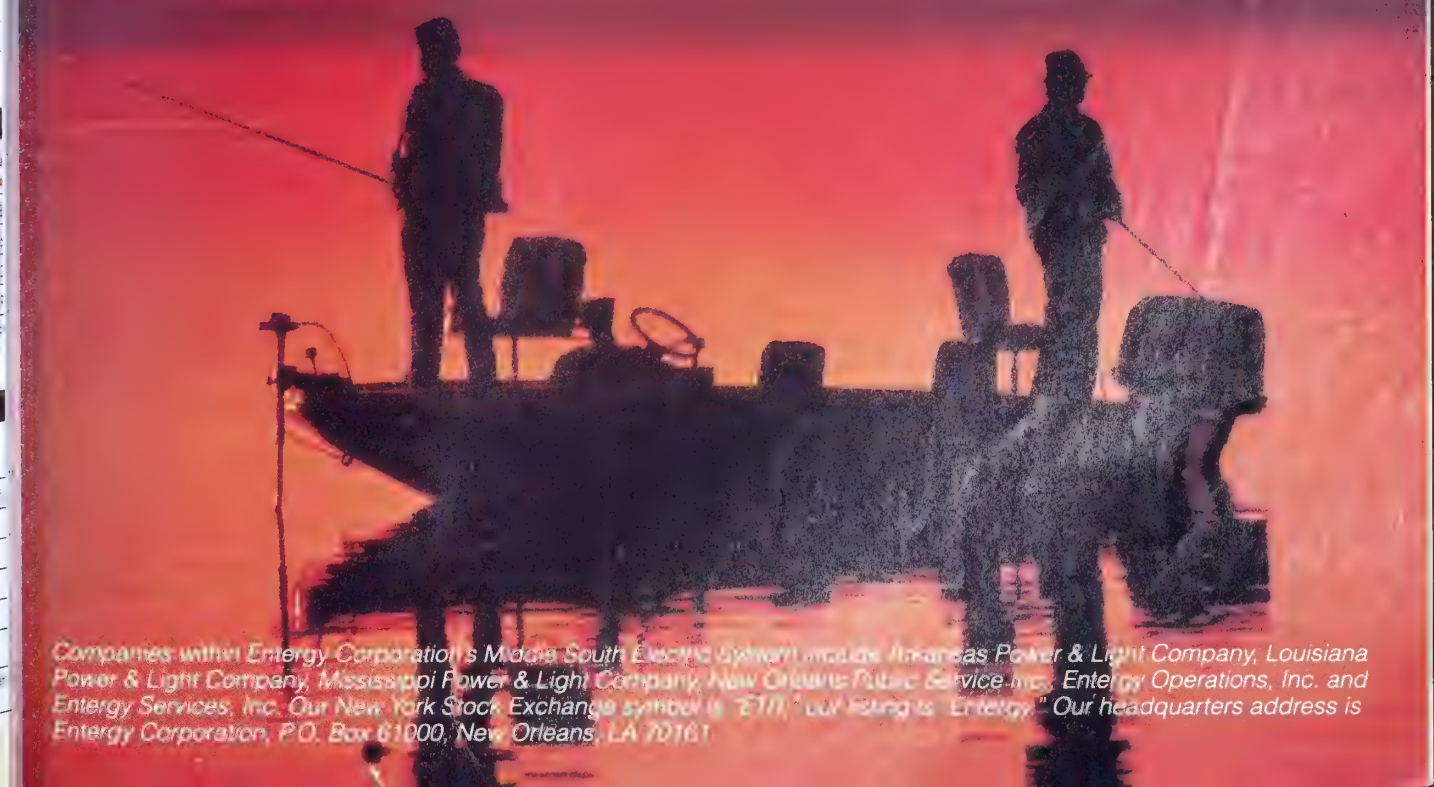
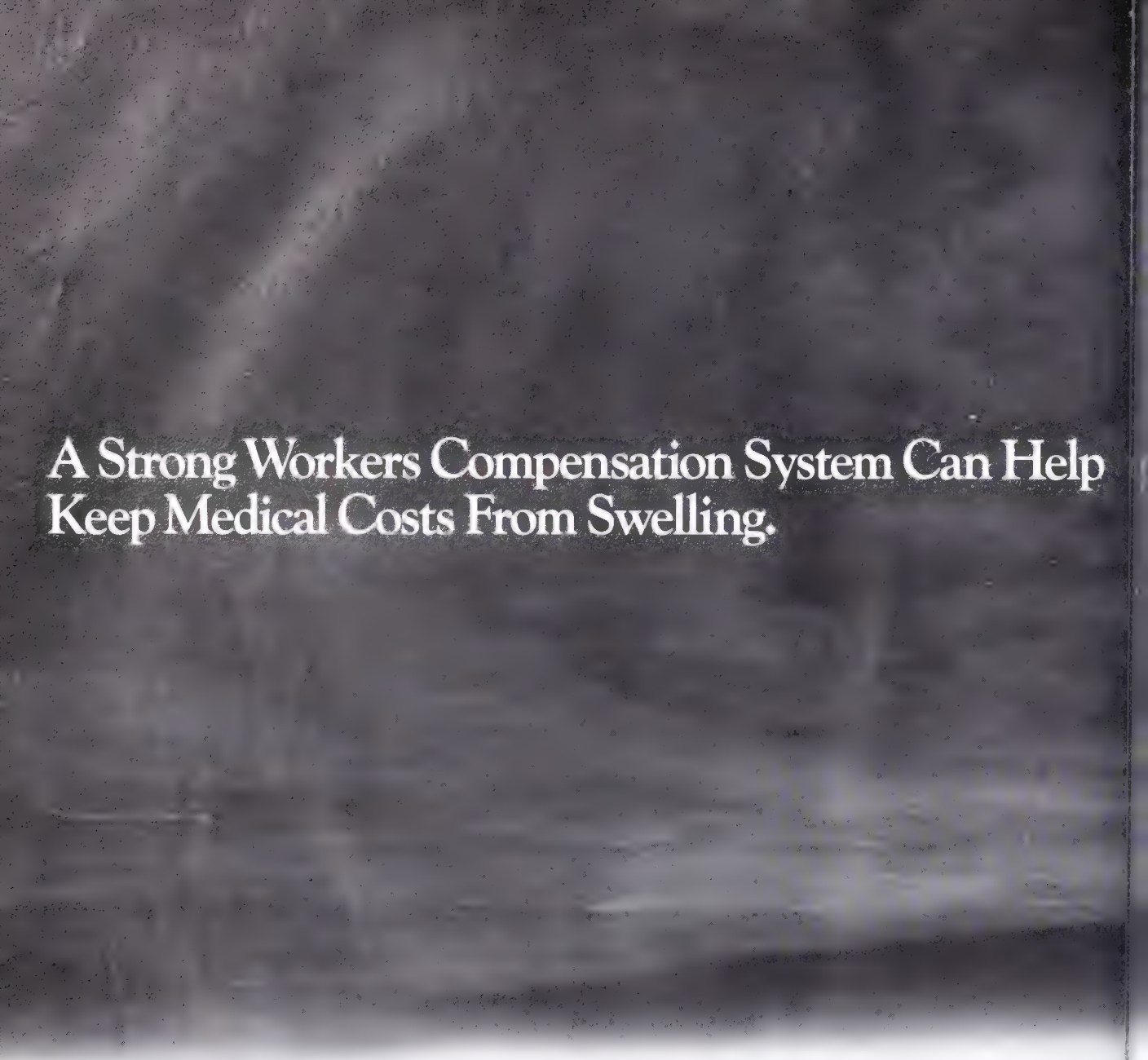


Companies within Entergy Corporation's Middle South Electric System include Arkansas Power & Light Company, Louisiana Power & Light Company, Mississippi Power & Light Company, New Orleans Public Service Inc., Entergy Operations, Inc. and Entergy Services, Inc. Our New York Stock Exchange symbol is "ETR," our listing is "Entergy." Our headquarters address is Entergy Corporation, P.O. Box 61000, New Orleans, LA 70161.



A Strong Workers Compensation System Can Help Keep Medical Costs From Swelling.

Everyone agrees injured workers deserve quality medical care.

They also agree that quality care helps injured workers get back to work earlier.

Unfortunately, they also agree controlling out-of-control medical costs is one of the most pressing problems we face today.

The Problems

America's health care costs are skyrocketing. Heading into the 1990s, it's already worse—the word "crisis" has been used more than a few times. And the forecast isn't good.

As if that weren't bad enough, Workers Compensation medical costs are even *more* out-of-hand, outpacing both health care increases and inflation. It's a serious situation that's spreading and directly affecting America's workplace, workforce, and productivity.

The Solutions

There are answers to deflate the over-inflated Workers Compensation medical costs:

First of all, we need to better manage treatment and rehabilitation.

Beyond that, we need sensible fee schedule We need to eliminate "doctor shopping" and un necessary testing. We need to look more seriously at cost containment programs, including utilization reviews, PPOs and other managed

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Help Strengthen Workers Compensatio

systems. And we need to ensure appropriate abilitation so the injured worker can return to rk quickly.

Improvements like these will take changes a state level, and the involvement of business lers on a personal level. All in an effort to ke cost containment go hand-in-hand with lity care.

The Next Steps

There are actually a couple of ways you can the situation:

For starters: Be aware. Find out what your e's situation is, how you're affected, and what can do to help. Talk to your insurance company or business trade association.

Or two: Share your views by writing to Gary Countryman, President and CEO of Liberty Mutual, 175 Berkeley Street, Boston, MA 02117. We'll help you get in touch with people in your state who can help.

Remember, Workers Compensation is a hard-working system that should benefit everyone it touches.

And the more attention we all pay now, the more costs we'll be able to hold down later.

LIBERTY MUTUAL

cause When A Worker Has An Accident, Everybody Gets Hurt.

BusinessWeek

Readers Report

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WHY THE JAPANESE ARE KINGS OF COMMERCE

Alan Blinder's suggestion that the consumer is "king" in the U.S. and the producer is "king" in Japan is misleading ("There are capitalists, then there are the Japanese," Economic Viewpoint, Oct. 8). Rather, in Japan it appears that the product or service is king while in the U.S. profit is king. The issue here is not profit but misplaced emphasis and the problem this creates for businesses. The problem is that insofar as U.S. managers believe and act on the proposition that they are primarily in business to make money—and only incidentally to produce a product or service—the consumer as king is a fiction. And sooner or later their business will vanish from the marketplace.

In effect, what this business attitude says to the king is: "My interests in making a profit take precedence over your interests in obtaining the best possible product or service for your money. If the choice is between improving the products and services I sell you or maximizing my profits, I will maximize my profits." The king replies, "Thou art a traitor. Off with his head" (Richard III).

The Japanese approach, by satisfying workers' self-interests, builds teamwork by managing to touch the better angels of human nature: enthusiasm, cooperativeness, self-discipline, dedication, and harmony. But human nature has its lesser angels, too: spitefulness, envy, quarrelsomeness, jealousy, resentment.

Homer E. Myers
Waipahu, Hawaii

THREE TAKES ON THE DENIGRATION OF DETROIT

In the face of a $3.2 trillion national debt, fraudulent deficit-reduction plans, and myriad socioeconomic problems, the continuing denigration of the U.S. auto industry is a tragedy bordering on subversion ("A new era for auto quality," Cover Story, Oct. 22). When are we going to realize that when a 100% American-made car priced to a dealer at $15,000 leaves a U.S. factory, it generates over $6,000 in tax revenues (and over $24,000, based on conservative ripple multiplier ratios), whereas a comparably priced import produces less than $400 with no ripple multiplier?

In this context, the constant quibbling about "quality," when the difference is usually less than one arguable defect in a product containing over 10,000 parts, is outrageous. Every U.S. auto is better than every import because it contains features you can't get on any import—schools, crime prevention, roads, bridges, defense, health care, social security, real deficit reduction, etc. American producers pay most of the taxes to support these and many other things we take for granted. Instead of berating Detroit, let's acknowledge that every American is responsible to some degree for the design, quality, and price of everything we produce.

Gus R. Stelzer
Mill Creek, Wash.

I was amused by your lengthy article on the new dimensions of quality. You imply that the Japanese, having conned us into doing statistical quality management, have pulled an end run and done a big "gotcha" via the new concepts of "delight" and "dazzle."

Who invented dazzle? The Big Three (remember tailfins?). In general (TVs, cars, chips), the Japanese have scored victory after victory by beating us on statistically reliable commodities. Now, changing circumstances are forcing them to move fast up the so-called value-added chain—where we and the likes of the Germans have excelled for decades.

Sony's CBS Records purchase is one example, as are the Lexus and Infiniti autos. Welcome to America's "dazzling" yesterday, Japan. I'll admit I have little doubt that, as usual, the Japanese will teach many a lesson by outdoing us at what we invented.

Thomas J. Peters
Palo Alto, Calif.

I have always felt BUSINESS WEEK covers business stories better than any other business magazine. However, I didn't expect your cover story to rival some of the best car magazines!

I do have one question regarding the article's reference to speedometer stan-

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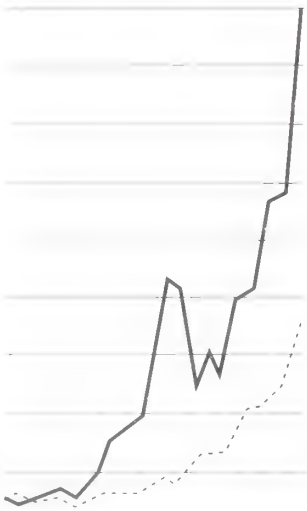

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COOPER

Readers Report

CORRECTIONS & CLARIFICATIONS

In our Corporate Elite issue (Oct. 19): ■ We mentioned pollution litigation involving Beckman Instruments; the litigation has been settled, and the company has been indemnified for all costs. ■ DSC Communications' Optilink subsidiary competes in the optical-loop carrier market, not cellular communications. ■ Duke Power has 1.5 million customers; it is one of five participants in an enrichment plant. ■ Hasbro should have been described as the largest toy company. ■ A hearing involving LG&E Energy dealt with a rate decrease, not an increase. ■ An item on Procter & Gamble should have referred to its $1 billion business in Japan; P&G does not compete in the orange-juice business in Japan. ■ Arvin Smith's tenure as CEO of Thermo Instrument Systems is four years. ■ U.S. Surgical CEO Leon Hirsch's holdings in the company are 1,707,000 direct shares, 6,000 indirect. ■ Woolworth was incorrectly listed as F. W. Woolworth. ■ A caption on page 27 of the issue should have referred to Continental Airlines, not Texas Air.

dards. Speedometers have to be accurate only within 6 mph, and Miata takes that to the limit. I wonder what the reaction is of the owners when they see their speedometer recording 6 mph before they even start the car?

Richard Korn
Melissa, Tex.

A DART GOES WIDE OF THE MARK

Your review of Joseph Persico's biography of William Casey ("Decoding the life of spymaster Casey," Books, Oct. 22) takes the author to task for being careless with his facts. Mr. Wildstrom should heed his own words. Justin Dart was in fact "a drugstore mogul" with Rexall, which was the base upon which Dart Industries Inc. was built.

Rand M. Curtiss
President
Loveman Curtiss Inc.
Beachwood, Ohio

PUBLISH-OR-PERISH PROFS IMPAIR THE B-SCHOOLS

Three cheers for New York University's Dean Richard West ("The best B-schools," Cover Story, Oct. 29). The publish-or-perish mentality that is so pervasive at many graduate business schools has run its course. Most faculty members are so busy doing research and

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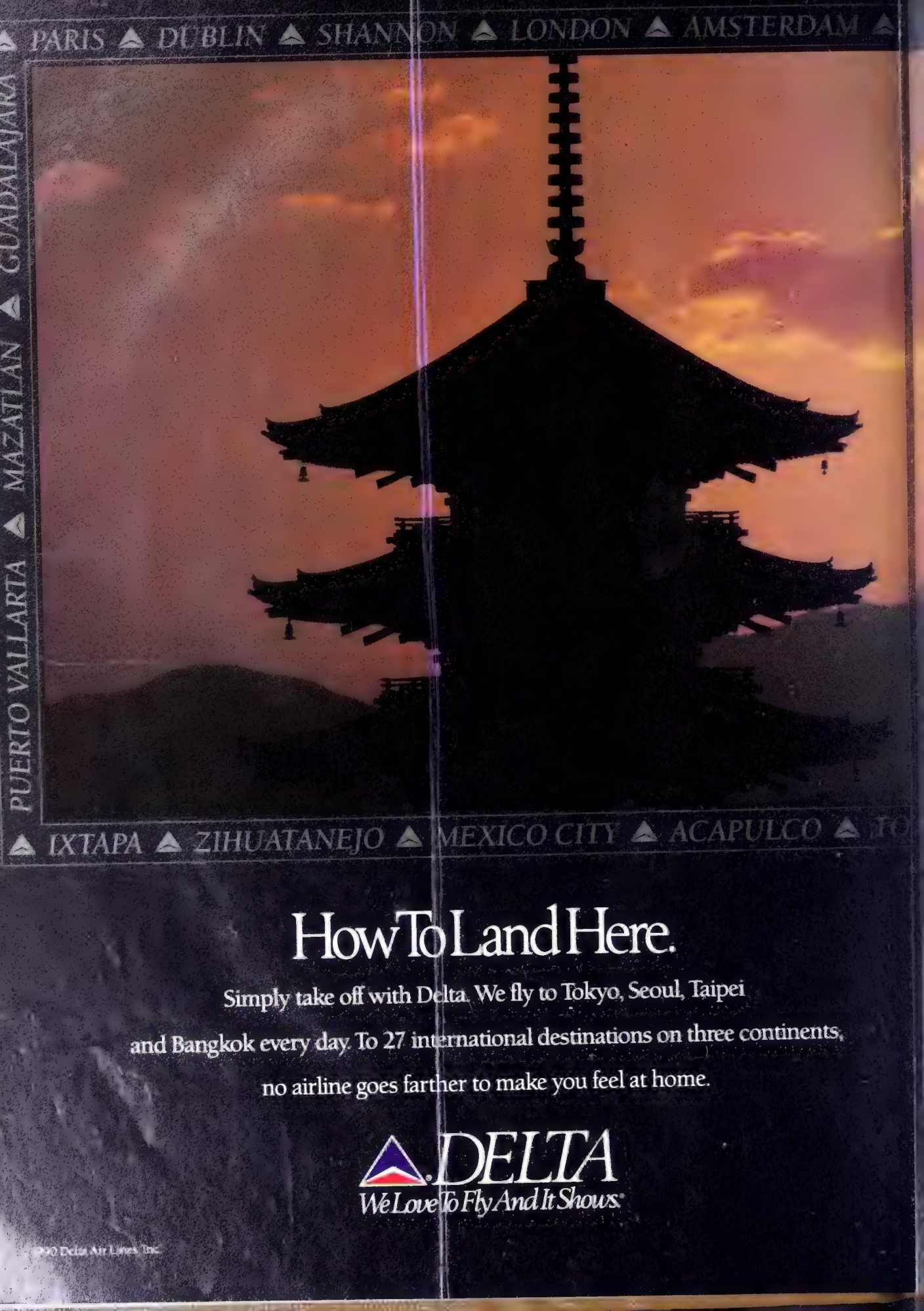
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FASB Retrains
Problem Remains

CORPORATE ASSETS ARE ABOUT TO GO TO HEALTH.

This year alone, American companies will spend more than $10 billion on health care for their retirees.

But if the cost of retiree medical benefits is extrapolated for every *current* employee who has been promised them, the figure is a whopping $400 billion plus. In 1990 dollars.

Even more alarming, this situation is reaching crisis proportions.

The Financial Accounting Standards Board rightfully advocates that 100% of this future obligation be recognized as a corporate liability. **Recently, however, FASB decided that implementation of their ruling could wait until 1993.** Which means that the problem will only become that much worse. And that leaves corporate America with some hard choices to make.

One option is simply to accept this liability and live with it. Some corporations, certainly, are strong enough to absorb a financial drain of this magnitude and continue with business as usual. But for many others, the situation is a lot more precarious. Some might even be affected to the point where liabilities exceed assets.

Another option is to eliminate retiree health benefits for all new hires. Many companies may indeed take this route. Unfortunately, this course of action will add untold millions of future retirees to the rolls of Medicare and Medicaid. And that's something we'll all have to pay for.

At ITT Hartford, we advocate pre-funding as the most responsible approach to retiree health care. But right now, pensions are the only significant retiree funds that are allowed to accumulate on a tax- advantaged basis. Retiree medical benefits are not afforded the same realistic tax advantages. That's fine as long as all we're paying for is current retirees. If we're being asked to recognize tomorrow's retiree health care costs today, however, the situation needs to be examined.

The Hartford doesn't think a company promise should have to become a company problem. And with the right kind of planning, it won't.

If you, your company, your civic organization, your industry group or your committee are interested in learning more about this issue, write to Chuck Clinton, Vice President, Asset Management Services A-1, Hartford Life Insurance Companies, P.O. Box 2999, Hartford, CT 06104-2999.

ITT HARTFORD

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Readers Report

writing as they try to get published that only a handful have any idea of what is going on in the business world.

Kenneth I. Brown
Stamford, Conn.

GREYHOUND: MAKING SIGNIFICANT PROGRESS

Some comments regarding your assessment of John W. Teets, chairman and CEO of Greyhound Dial Corp. (Corporate Elite issue, Oct. 19):

The building of "a flashy new headquarters" involved no Greyhound Dial funds, yet Greyhound Dial will own 50%. The new building results in better overall occupancy costs than the renewal contract proposed on existing facilities.

The $100 million reserve established earlier in 1990 had nothing to do with Greyhound Dial's retention of a 23% ownership stake in the sold-off bus lines. Rather, it came as the result of a violent strike against Greyhound Lines by the Amalgamated Transit Union that began on Mar. 1, 1990, and forced GLI to file for bankruptcy protection on June 4, 1990. The reserve was fully explained at the time it was established and was well understood by the financial community.

The reference to the above paling "next to potential problems in [a] big real estate portfolio" is puzzling. Since Greyhound Dial is not a real estate developer or investor, you must be implying that its wholly owned finance subsidiary, Greyhound Financial, is exposed to the current depressed real estate markets and is facing potentially significant losses. Just 16% of the financed company's $1.7 billion in loans involves traditional commercial real esate and lending and only 1.9% of its assets consists of nonearning real estate loans—an amazingly low percentage compared with most other financial institutions. The finance company has received seven upgrades from the four national credit-rating agencies in the past two years. Moody's Investors Service recently concluded its analysis and stated in August 1990, "rapid deterioration of asset quality is a remote risk. . . ."

In short, your assessment overlooks the significant progress in refocusing Greyhound Dial's activities toward new strategic directions.

William H. Peltie
Vice-President
Greyhound Dial Corp.
Phoeni

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IN ALL HIS GLORY: THE LIFE OF WILLIAM S. PALEY
By Sally Bedell Smith
Simon & Schuster • 782 pp • $29.95

PALEY THE PRIDEFUL, PALEY THE GENIUS

The timing of Sally Bedell Smith's *In All His Glory* is eerily fortuitous. Media reporter Smith started working on her biography of William S. Paley, the man who built CBS, in 1985. In publishing circles, the book has been eagerly awaited, not least because it promised an extensive reinterpretation of Paley's carefully cultivated image. That simmering interest has been brought to a boil by Paley's death, at 89, four weeks before the book's official publication.

In All His Glory was worth waiting for—a remarkably complete, detailed, and balanced study. It actually reads like a book about a man already in his grave—couched in the past tense and elegiac in tone. All it needs is a few paragraphs to complete the story.

BILL PALEY WITH BABE IN 1947: THE ULTIMATE "TROPHY WIFE"

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Perhaps because the outlines of Paley's career are by this time so well-known, Smith, who reported on CBS for *TV Guide* and, in the early 1980s, for *The New York Times*, is already writing revisionist biography. She exercises her formidable reporting skills to correct or revise the received versions of episodes in Paley's business and personal life—the versions that were promoted by Paley himself.

In many ways, he is an easy mark for such sharpshooting. All his life, Paley cultivated a view of himself as a tasteful patrician who was also a creative genius and consummate businessman. He believed he had an unerring eye for the best of everything, from wives to paintings to companies. The temptation to grab credit for anything that would enhance that image often proved irresistible. For example, he let the notion that he founded CBS go uncorrected. In fact it was started in 1926 by talent promoters George Coats and Arthur Judson. Paley and his family subsequently invested in the network, and he became president in 1928.

In 1964, the company's lavish new black-granite (Paley had suggested pink) headquarters in New York, designed by the late Eero Saarinen, proved something of an aesthetic triumph. Paley Smith notes, eventually took "the lion's share of the credit. . . ." In fact, as she also points out, the elegance and obsessive attention to interior detail of "Black Rock" was an extension of the personality of Frank Stanton, for a quarter of

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a century Paley's second-in-command.

Smith also corrects Paley's account of the 1929 deal with Paramount Pictures that gave CBS some needed capital. In Paley's telling, he triumphed over Paramount's Adolph Zukor by standing firm on a price of $5 million for a half-interest in CBS, payable in Paramount stock with a buyback provision. Unfortunately, the market crashed four months later, and the Paramount stock lost much of its value, depriving Paley of any advantage he might have gained by selling it on the open market. Eventually, the companies repossessed their own shares. Paley did come out ahead, but he had to scramble for loans to finance his half of the deal, paying more than he would later claim. And to raise revenues, he opened his network to a flood of ads that by the conservative standards of 1920s radio were both crude and overly shrill.

Predictably, Smith is strongest on the period she knows firsthand as a reporter: the 1980s, when an aging Paley was reluctant to let go of his equally aging company. She provides the fullest account I have read of his successful struggle to return from retirement in 1986, dump Chairman Thomas Wyman, and replace him with Laurence Tisch.

Smith offers a just estimate of Paley's character: "the insecurity, the deliberative and somewhat secretive decision making, the reluctance to display his power overtly, the overriding pragmatism. . . ." She also notes his powerful charm, which consisted in part of focusing in the most flattering way on whomever he was talking to. I interviewed Paley several times over the years, and Smith is right: What one knew of his ruthlessness, his coldness, and his fundamental cynicism couldn't compete with the grin that crinkled his tanned street fighter's mug and the steady regard of his eyes. Smith is also correct about the qualities that really made Paley a success: his "pummeling energy" and unusual physical stamina.

Although Paley's enthusiasms were generally short-lived, he was never bored when it came to CBS. In the matter of programming instinct, which was his pride, he was an industry legend. And Smith gives full measure to his public corporate career.

She details his famous raids on NBC in the late '40s, when he virtually stripped his rival of its top stars, including Amos 'n' Andy, Jack Benny, and Burns and Allen. Paley in the early deals used a weapon suggested by Music Corp. of America agents Lew Wasserman and Taft Schreiber. The performers incorporated themselves and sold the corporate shells to CBS, which enabled them to convert their salaries, then taxed at a mar-

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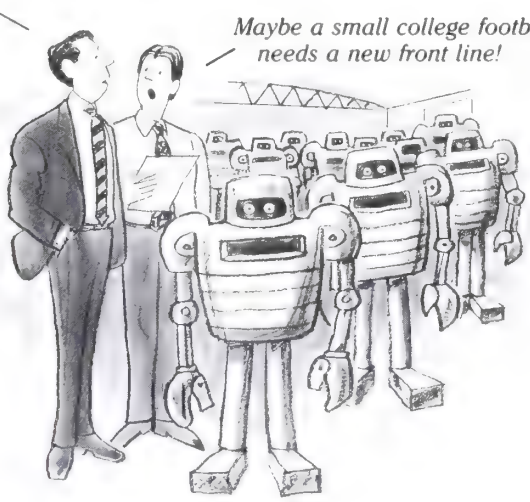

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Books

ginal rate of 77%, to capital gains—taxed at 25%. Although Paley and Stanton boasted of the capital-gains tactic for years afterward, the later raids depended on paying big bucks and guaranteeing long-term sponsorship contracts.

Smith also retells the story of Paley's half-worshipful, half-exasperated relationship with Edward R. Murrow and CBS News. Clearly, however, her chief interest is Paley's personal life. She lavishes attention on the early years of his first wife, Dorothy Hart Hearst. And when she gets going on his life with wife No. 2, the late Barbara Cushing Mortimer Paley, the book turns into something distinctly different among

> Paley chased—and was chased by—his wife's friends, his friends' wives, his friends' friends . . .

CEO biographies. Babe Paley was, after all, a leading member of the sophisticated pack of ladies-who-lunched at Mortimer's or Le Cirque, a group imprisoned in amber in *Answered Prayers*, Truman Capote's fragmentary *roman à clef*.

Smith presents her as the ultimate "trophy wife" and the willing victim of a demanding, self-centered man. She also quotes testimony from close friends that in the mid-1950s, Paley lost interest in Babe as a sexual partner, though not as a hostess and companion. The corollary is Smith's exhaustive documentation of Paley's incessant pursuit of other women. He chased—and was chased by—his wife's friends, his friends' wives, his friends' friends, as well as the usual complement of youthful tarts-about-town who cluster around men of power. Even in his eighties, Smith writes, he was "always looking for a conquest."

To be just, Smith keeps her balance despite the willingness of literally dozens of people to talk on the record about the most scandalous behavior. She never loses sight of the fact that Paley was an extraordinary manager who gave his talented company amazingly free rein. It may be, as she says, that Paley virtually invented himself, and "like many people who invent themselves, he came to venerate the invention." But he also invented a unique and unprecedented medium of entertainment and news, and in so doing, built the most successful television enterprise in history.

BY EPHRAIM LEWIS

Retired Senior Editor Eph Lewis reported on Paley and CBS during the glory years.

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THE TAX INCREASE IS RIDING IN ON A TROJAN HORSE

BY PAUL CRAIG ROBERTS

Using the S&L bailout to inflate deficit projections artificially, Darman got a budget agreement. But his personal triumph came at the expense of Bush and the GOP

PAUL CRAIG ROBERTS IS CHAIRMAN OF THE INSTITUTE FOR POLITICAL ECONOMY IN WASHINGTON

President Bush went back on his word for the sake of a voodoo budget based on a misunderstanding by his advisers. Moreover, his reward for breaking his promises not to raise taxes or tax rates is a record budget deficit of $254 billion for the current 1991 fiscal year. Ronald Reagan, who previously held the record, managed to take the sting out of his deficits with tax cuts and with 20 million new jobs. But George Bush has managed to combine a large tax increase with the most red ink ever. If the tax increase worsens the economy, as most economists expect, Bush's record deficit could grow to more than $300 billion.

With no tax cuts to blame and a budget forecast that assumes there will not be a recession, the extraordinary explosion in the deficit came as a shock. After all, the 1989 fiscal year closed with a deficit of $152 billion, or 2.9% of gross national product—the average of the Ford-Carter years—and the deficit problem seemed to be behind us. The budget for fiscal year 1991 submitted at the beginning of this year envisioned a deficit of only $124 billion for 1990, falling to $63 billion in 1991, or 2.3% and 1.1% of GNP respectively. But eight months later, in the Sept. 30 budget summit agreement, the deficit estimates for 1990 and 1991 had ballooned to $220 billion and $294 billion, or 5% of GNP. Moreover, the estimate for 1992 had moved from near balance to $306 billion in red ink.

HIDDEN AGENDA. The sudden appearance of a hemorrhaging deficit is the product of Budget Director Richard G. Darman's decision to include the savings and loan bailout in the budget, to make a deal with the Democrats inevitable. A cynic might say that Darman's hidden agenda was to maneuver the President into breaking his no-new-tax campaign pledge to put an end to the Reagan era of confrontation with Congress. Regardless, this treatment of the bailout flies in the face of conventional accounting techniques—something the government does often, although not usually on this scale. The bailout is a one-time affair of acquiring and disposing of assets, unrelated to the ongoing taxing-and-spending operations of the government. It would have been perfectly legitimate and appropriate to conduct this operation off-budget.

By including the bailout in the budget, the government's expenditures are dramatically increased in 1990, 1991, and 1992, while the government acquires an inventory of assets from failed S&Ls. Then, in 1994 and 1995, the sale of the assets shows up in the budget as dramatic expenditure reductions. By distorting the federal-spending path with an asset-inventory swing, Darman was able to achieve the budgetary feat of cutting future spending below current levels. For example, the summit agreement showed 1994 outlays $50 billion below 1992 levels.

Whatever Darman's motives for including the bailout in the budget, it provided $300 billion deficits with which to panic Treasury Secretary Nicholas F. Brady and his Wall Street friends. Brady told President Bush that he could keep his "no new taxes" pledge only at great peril to the economy. Interest rates would explode, Brady warned, unless Bush accepted higher taxes to cut the deficit.

Bush's claim that he broke his promise to save the economy with lower interest rates is nonsensical, as the agreement does not reduce the deficit below current financing needs. If a $152 billion budget deficit in 1989 was too high to permit the Fed to lower interest rates then, how can the Fed cut interest rates now that the deficit has climbed 67%, to $254 billion? If deficits determine interest rates, as so many Republicans think, interest rates must now rise dramatically.

HARD TO PITY. There is a solid case for including the government's losses on its purchase and sale of S&L assets in the budget as expenditures. However, including the gross-inventory acquisition and subsequent asset sale served only to inflate and deflate deficit projections artificially—and to confuse the public about the behavior of public spending. Thanks to Darman's machinations, big-spending politicians can point to the official budget numbers and claim they are spending less in 1994 than in 1991, and less in 1993 than in 1992, despite the continuing growth in federal programs.

The use of the S&L bailout to manipulate the outlay and deficit paths allowed Darman to get a budget agreement and win the Washington game as he plays it. However, Darman's victory is a classic example of the tail wagging the dog: The budget director's personal triumph was at the expense of the credibility of George Bush and the Republican Party.

Nevertheless, it is hard to feel sorry for Bush and those Republicans who believe the only economic issue is balancing the budget. If they had read former Budget Director David A. Stockman's book, *The Triumph of Politics*, they would have found a finely drawn portrait of Darman as Stockman's principal co-conspirator in numerous efforts to trick and maneuver President Reagan into accepting tax increases.

Bush could have put someone in the Treasury with the wits and foresight to keep Darman in line. But he didn't. It's his government, and Darman's victory is Bush's defeat. ■

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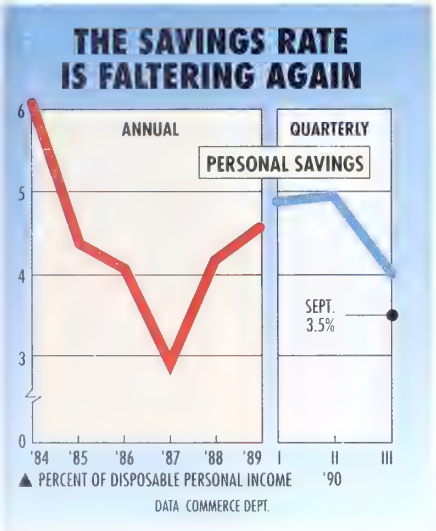
BY GENE KORETZ

A LOW SAVINGS RATE HURTS—BUT SO WOULD A HIGH ONE

Don't expect a revival of the personal savings rate anytime soon," advises economist Lacy H. Hunt of Carroll McEntee & McGinley Inc. "The rumors of its resurrection have been greatly exaggerated."

American households have long tended to squirrel away less savings than their counterparts in other industrial countries—a fact distressing to those who believe that high savings foster strong investment and productivity growth. According to supply siders, that was supposed to change in the 1980s, as lower tax rates induced greater savings. But consumers failed to take the hint. Instead of rising, the personal savings rate, which averaged 8% in the 1970s, fell like a stone during the expansion—hitting a postwar low of 2.9% of disposable income in 1987 as households took on a record amount of debt to maintain or improve their living standards.



More recently, several economists, such as Edward Yardeni of Prudential-Bache Securities Inc., have predicted that demographic factors would boost the savings rate to 10% within a few years. In their view, savings fell in the 1980s because the baby boomers were spending heavily at the start of their careers for such items as housing and furnishings. By the early 1990s, however, the boomers would be earning more, spending less, and saving for their kids' educations and their own retirement.

Last year, when the savings rate appeared to surge to 5.4%, it all seemed possible. But data revisions have since cut back the 1989 rate to just 4.6%, and at last count in September the savings rate was down to 3.5%, its lowest reading in years. "It's disappointing," admits Yardeni. "Unfortunately, a lot of baby boomers lately have been getting pink slips instead of promotions, and that may be deferring the savings revival."

Hunt agrees that adverse economic developments are offsetting any possible benefits of a demographic shift. "Baby boomers," he says, "are just doing what they've done all along, trying to maintain their living standards. The problem is that it's getting a lot harder to do."

While wages are up only 4.5% over the past 12 months, he notes, consumer prices have jumped 6.3%, so consumers have to spend more just to stay in place. Meanwhile, rising layoffs and higher taxes promise to cut into real disposable income growth even more. "The irony," he says, "is that consumption has helped keep the economy afloat, and a pickup in savings at this point would undoubtedly deepen the developing recession."

In any case, the lethal combination of sluggish income growth, high core inflation, and rising taxes and unemployment suggests that consumers may be unable to rebuild their savings for some time to come. And the absence of a pool of private savings at a time when the dollar is weak and foreign investors are focusing on profit opportunities overseas will hamper the Federal Reserve's ability to use monetary policy to jump-start the economy. "Such low savings at the start of a downturn," says Hunt, "increase the odds of both a prolonged recession and an anemic recovery."

CAR SALES LOOK GOOD, BUT THEY SEEM HEADED FOR A WALL

Although auto sales are down this year, the surprise is their relative strength. In the wake of the Kuwait invasion, domestic auto sales in September hit a 7.6 million-unit annual rate, the fastest clip in a year. And they slowed to a still-respectable 7.1 million pace in October, in the face of the largest drop in consumer confidence on record.

Economist Mark M. Zandi of Regional Financial Associates Inc. thinks the numbers are misleading, however. For one thing, he points out that fleet sales to the major rental car companies (which are partly owned by the Big Three auto makers) are up sharply this year. Through August, fleet car sales in 1990 were up 98% over year-earlier levels—helping to limit the drop in total domestic car sales to 19%, even though unit retail sales to consumers were down 27%. What's more, Brian Jones of Salomon Brothers estimates that rental fleet purchases accounted for 22% of domestic sales in September and seem to have bolstered October sales as well.

With business and leisure travel already weakened by high fuel costs and growing economic malaise, the rental car buying surge should end soon, says Zandi. He also notes that it usually takes a few months for declines in consumer confidence to affect consumer auto purchases. "Car sales," he says, "are poised to run off a cliff."

CAPITAL SPENDING: JAPAN MAY SNAP ITS WALLET SHUT

Last year, Japan spent more on plant and equipment than the U. S., despite the fact that its labor force is less than half that of this country. But that remarkable surge in capital spending, which equaled an impressive 20% of Japan's gross national product, may run out of steam next year, predict economists at Merrill Lynch Capital Markets.

The reason: After raising about $180 billion in equity financing last year, Japanese corporations are expected to raise only 25% of that this year in the wake of the stock market crash. And the loss of that source of cheap capital combined with the Bank of Japan's tight-money policy is forcing Japanese companies to rethink their investment intentions. A survey released by the Ministry of International Trade & Industry indicates that Japanese companies now expect to boost their capital spending in fiscal 1991 (starting next April) by only 2.5%, compared with 18.2% in fiscal 1990.

TWO MORE SIGNS OF A COMING STORM

Experts are pondering the implications of two unexpectedly abrupt demographic shifts. The latest data indicate that household growth slowed sharply from 1989 to 1990, to 0.6%, compared with an average annual increase of 1.6% during the 1980s. Meanwhile, the labor force this year has been expanding at a minuscule 0.2% annual rate, versus 1.5% in 1989. The last time households and the labor force grew so sluggishly was during the 1982 recession, when bleak economic prospects discouraged people from forming new households and seeking work. ▣

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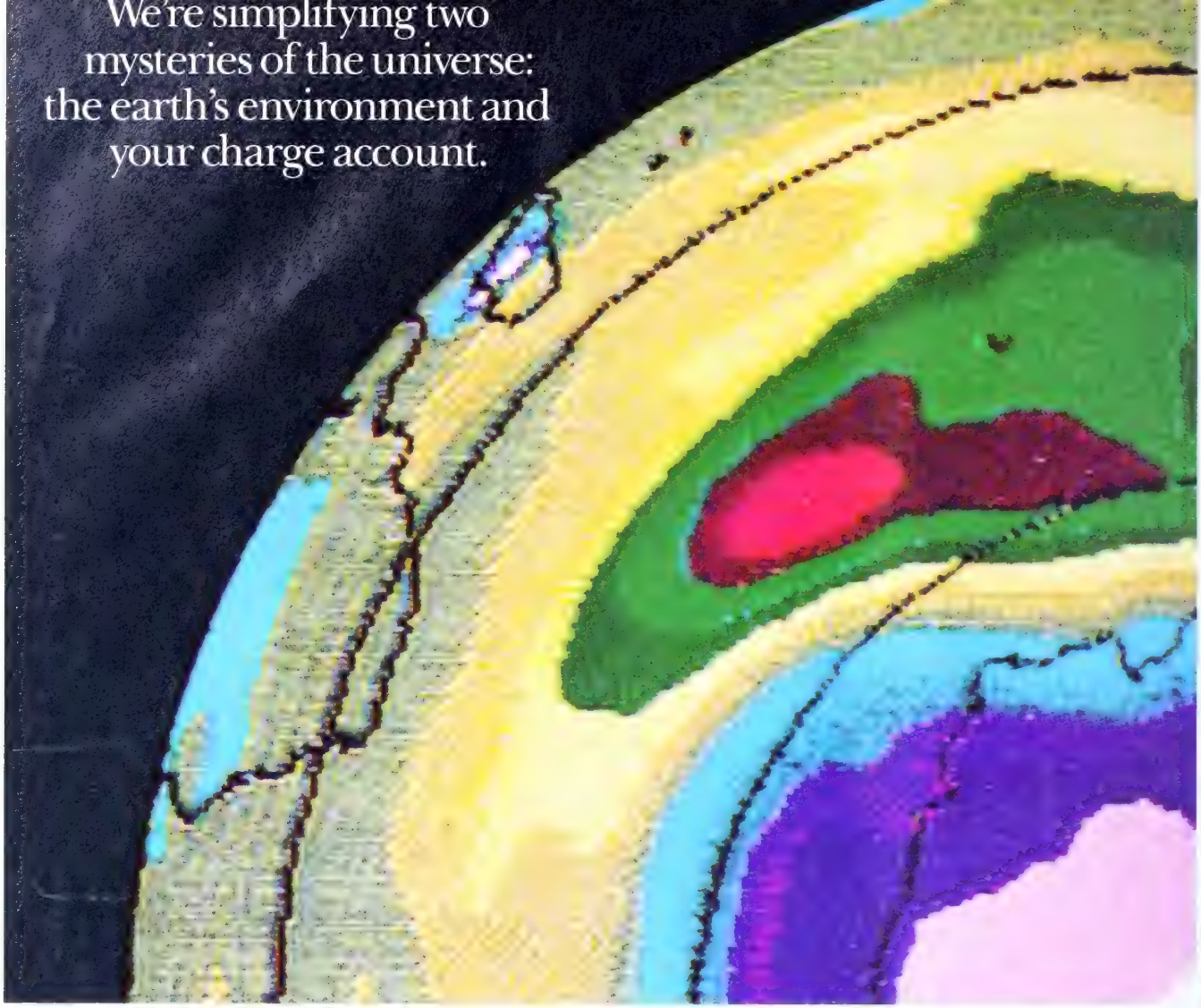

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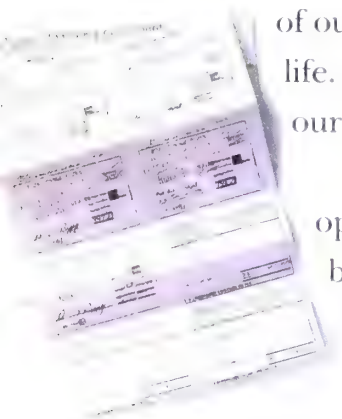

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TRW

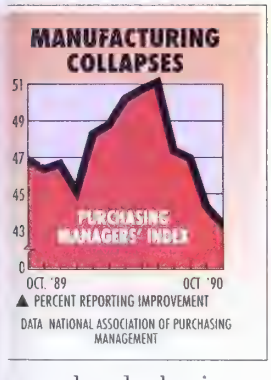
NOVEMBER 19, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

RECESSION? THE DOUBTERS HAVE ALL BUT DISAPPEARED

Is there any doubt that the U.S. economy is in a recession? Even the economists finally seem convinced, according to this month's issue of *Blue Chip Economic Indicators*. The title of this widely followed survey of forecasts will be set against a bright red background for the first time in nearly eight years. That's an alert that a consensus of the 52 economists now expects two consecutive declines in real gross national product this quarter and next—the most popular definition of a recession.

Washington's latest economic reports give the economists lots of support. After a mixed bag of data in recent weeks, the numbers are now flashing classic recession signals: Private employment has fallen broadly for two consecutive months. New claims for unemployment benefits are soaring at a pace consistent with the onset of past recessions. And the nation's purchasing managers report that the downturn in manufacturing is spreading to the rest of the economy (chart).



Mo eover, the government's main forecasting tool, its composite index of 11 leading indicators, is in free fall. The index fell 0.8% in September. The fact that only one component, capital-goods orders, managed a gain is testimony to the breadth of the economy's weakness. The index had dropped an even steeper 1.2% in August.

With many of the 11 indicators already having posted declines for October, that month's index is likely to fall at least 1%. That would complete the largest three-month slide since the last recession. Since the 1950s, a three-month decline of that size has occurred only just before or during a recession.

INTEREST RATES ARE READY TO FALL

The credit markets are also turning into believers. That could mean that interest rates are about to drop. The only thing preventing the decline is the fear of war in the Middle East. But despite worry over oil prices, the Treasury's recent auctions of three-year and 10-year notes sailed through the market with little trouble.

The bond market is becoming convinced that the economy is too weak to breed inflation. Credit markets are also less worried about the fading dollar and shrinking foreign demand for U.S. securities, because they believe reduced credit demand in the private sector is venting much of the upward pressure on interest rates.

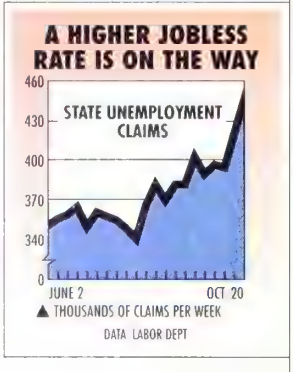
Clearly, short-term rates are headed lower. The proliferation of weak economic reports is weighing heavily on the Federal Reserve Board. It seems likely to ease monetary policy for the second time since Oct. 30, probably in conjunction with its next policy meeting on Nov. 13.

LABOR IS IN A DISMAL STATE

The clearest evidence of the economy's deterioration is in the labor markets—and the toll is going to get worse. Private nonfarm industries cut 98,000 jobs from their payrolls in October, following a 58,000 decline in September. The weakness in both months was the broadest since the 1981-82 recession. With only one exception in the past 30 years, back-to-back declines in private payrolls have signaled a recession.

The dismal state of the labor markets isn't apparent in the jobless rate yet. It remained at 5.7% in October. But it's sure to rise—and probably soon. That's evident from the surge in new claims for unemployment benefits (chart). Claims are a leading indicator of the jobless rate.

Other clues: More people are taking part-time positions because those are the only jobs available. And a bigger share of the unemployed are those who lost their jobs, rather than people just entering the labor markets or workers who quit voluntarily. So an unemployment rate above 6% by yearend wouldn't be surprising.



Higher unemployment certainly wouldn't be startling news to the thousands of workers at goods producers who already have lost their jobs. Construction companies have let go 265,000 workers since February, with 80,000 laid off in October. And manufacturers have pared 581,000 since early 1989.

For construction workers, the downward trend in building activity holds little hope of a turnaround. In September, construction spending dropped 2.8%, with all the major categories taking a hit. And the worst is yet to come.

New building contracts in September were virtually unchanged from August's level, but they have slid some 21% below their pace of a year ago, according to the F. W. Dodge Div. of McGraw-Hill Inc. That means fewer new projects when old ones are completed, so more layoffs are a sure bet.

Factory workers won't fare much better. In the face of sagging demand, companies pared 61,000 employees in October. In addition, the factory workweek dropped to

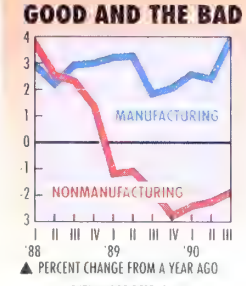
40.8 hours from 41.1, with only 2 of 20 industries increasing hours. This widespread drop in the workweek plus the broad cuts in jobs suggest that industrial production was down sharply in October.

FACTORY WAGES ARE UP . . .

The drop in the business-activity index compiled by the National Association of Purchasing Management highlighted the severity of manufacturing's problems. The index slid to 43.4% in October from 44.4% in the previous month. The index is now below the 44% threshold that usually indicates when a slumping industrial sector has dragged the entire economy into recession.

In particular, sharp cutbacks in auto production will hurt economic growth in the current quarter. The recently announced cuts at General Motors Corp. alone will subtract about 0.5 percentage points from fourth-quarter growth in real GNP, according to economists at GM.

PRODUCTIVITY: THE GOOD AND THE BAD



▲ PERCENT CHANGE FROM A YEAR AGO

DATA: LABOR DEPT. BW

Times are also getting tougher for service workers, who were thought to be insulated from pink slips. Only 44,000 new private-sector service jobs were added in October. But excluding health care workers, employment fell in each of the past two months. The hiring numbers may look even worse in November and December, because stores aren't likely to add as much extra help for the holidays as they normally do.

With service companies scaling back hiring, it's not surprising that wage growth in services is finally beginning to top out. In the past 12 months, service wages have risen about 3.9%, down from their gain of 4.5% a year earlier. They will slow further in 1991.

Oddly enough, wage growth in manufacturing has accelerated, rising to 3.9% in October from 2.6% a year ago. That's probably because the first workers to be laid off usually have less seniority—and thus earn less. So workers still on the job have a higher average wage than those in the previous pool of workers. Also, unions in the oil-refining, auto, and steel industries negotiated favorable contracts for their members over the past year.

However, the wage gains in the factory sector aren't as troubling as those in the service side of the economy. That's because productivity gains in manufacturing have more than offset the growth in wages.

. . . BUT WORKERS ARE MORE EFFICIENT

The division in the economy's productivity performance was evident in the government's latest report (chart). Output per hour worked in the nonfarm sector rose at an annual rate of 1.6% in the third quarter. Factory productivity was up 5.6%, but the 80% of the economy outside of manufacturing posted no growth at all.

During the past year, manufacturing productivity has risen 4%. Since wages and benefits are up by less than that, the cost of producing a unit of output has actually fallen 0.7%. That takes pressure off factories to raise prices in order to maintain their profit margins.

But just the opposite is true elsewhere. Productivity in nonmanufacturing, mainly services, has actually fallen 1.9% during the past year. With wages rising, that means unit labor costs are soaring. But as demand fades, services will find it increasingly difficult to hike prices. The most likely result is that the ensuing profit squeeze will force even more layoffs.

Broad weakness in services could be one of the big differences in this recession compared to those in the past. As in all downturns, manufacturing is sure to take a big hit. But this time, services are a good bet to suffer more than in past slumps. Since the service sector employs four out of every five workers, that red recession banner on the *Blue Chip* survey might well be around a lot longer than economists now expect.

THE WEEK AHEAD

RETAIL SALES

Wednesday, Nov. 14, 8:30 a.m.
Retail sales are expected to be flat in October, according to economists surveyed by MMS International, a division of McGraw-Hill Inc. Retail spending jumped by 1.1% in September, thanks to higher new-car sales and a price-related, 4.9% increase at gasoline stations.

INDUSTRIAL PRODUCTION

Wednesday, Nov. 14, 9:15 a.m.
Sharp declines in both factory payrolls and the workweek suggest that industrial production slipped by about 0.4% in October, after rising 0.3% in September, says the MMS report. Output was relatively healthy in the third quarter, led by auto production. But cutbacks by carmakers will hurt output this quarter.

CAPACITY UTILIZATION

Wednesday, Nov. 14, 9:15 a.m.
The drop in industrial output suggests that capacity use fell sharply in October, to 83.1% from 83.6% in September.

BUSINESS INVENTORIES

Thursday, Nov. 15, 10 a.m.
Inventories at manufacturers, wholesalers, and retailers likely rose about 0.4% in September, after increasing 0.5% in August. That's suggested by the already reported 0.6% gain in factory stockpiles. But much of the inventory growth was concentrated in the oil-refining industry and was caused by higher energy prices.

CONSUMER PRICE INDEX

Friday, Nov. 16, 8:30 a.m.
The MMS consensus expects a rapid 0.7% increase in consumer prices in October, following a 0.8% surge in September. Higher energy prices will lead the gain. Excluding food and energy, prices are expected to post a 0.4% hike in October, after rising 0.3% in September.

MERCHANDISE TRADE BALANCE

Friday, Nov. 16, 8:30 a.m.
The foreign-trade gap remained stubbornly high in September, probably at $9.2 billion, according to MMS. The August deficit was $9.3 billion. Exports and imports probably were little changed in September, after both rose in August.

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COVER STORY

★ BUSH AND BOSCHWITZ AT A MINNESOTA HIGH SCHOOL: THE GOP SENATOR WAS UPENDED BY LIBERAL COLLEGE PROFESSOR PAUL WELLSTONE

NOVEMBER 19, 1990

LOST GROUND, HARD FEELINGS

BUNGLING THE ELECTION OF '90 WILL DEEPEN DIFFERENCES WITHIN THE GOP

Voters sizzled over venal politicians—but reelected 97% of House and Senate candidates. Underfunded campaign reformers toppled Republican officeholders in Florida and Minnesota—but free-spending incumbents romped almost everyplace else. Taxes were poison in New Jersey and Nebraska—but not in Illinois, where a no-tax Democrat fell to a GOP gubernatorial candidate whose lips said "yes." Democrats scored big gains in key Sunbelt governorships—but lost statehouses in Ohio and Michigan.

Looking back on the mixed message of Campaign '90, it would be easy for President Bush to mop his brow, order a martini, and conclude that things might have been worse for the Republicans. Indeed, that was precisely the spin that GOP spokesman Charles R. Black was gamely attempting to apply when he affected his most earnest look, hitched up his sincere tie, and said: "It was a very good day for our party."

A few more good days like that and Republicans will go the way of the Whigs. On its own terms, the 1990 midterm election was a humbling rebuke to a barnstorming Bush and a GOP leadership that only a few months earlier issued confident predictions that the party would reverse the historical pattern (chart, page 45) and score a big off-year success. Instead, Democrats gained nine House seats. They picked up a net gain of one Senate seat, dealing a blow to GOP hopes of regaining control in 1992. Governors' races were more complicated. Each party dropped one seat as independents won in Connecticut and Alaska (table). But the Democrats now have a 28-to-20 lead over the GOP in governorships. And wins in Florida and Texas give Democrats control over redistricting in mega-states that will gain seven House seats.

DEMO-SCLEROSIS. But the casualties on the campaign battlefield could be mild in comparison with what lies ahead. That's because a Republican Party that has enjoyed a decade of enviable political success is now exhibiting some of the unmistakable signs of "Demo-sclerosis," a potentially lethal condition that bedevils parties that stay in power too long. Says GOP analyst Kevin Phillips: "What we're

seeing is a classic pattern of a party in decline."

Overstated? Consider the symptoms: Republicans went into the election on the defensive over the budget mess and lacking a clear political strategy. Now the recriminations will start. White House Chief of Staff John H. Sununu, National Republican Congressional Committee political boss Edward J. Rollins, and a host of other top GOP officials will end up fighting for their jobs in a confrontation that will expose the rundown condition of the GOP's political machinery. "There is acrimony and a lot of hard feelings," says retiring Representative Bill Frenzel (R-Minn.). "It's going to be ugly."

Beyond the immediate family feud over the election outcome, Republicans face a deepening ideological split that threatens to undermine their governing coalition. President Bush's abandonment of his no-tax pledge has driven a deep wedge between the party's more moderate wing and hardline antitax conservatives. The dispute will spill over into divisive GOP leadership fights in the new Congress. Perhaps most worrisome for the nation, Bush's authority in Washington is eroding even as he has led the U. S. to the verge of war in the Mideast.

STALE ISSUES. Republicans prospered over the past decade on the strength of two pivotal ideas: Die-hard opposition to taxes and fervent anti-communism. Both pillars are crumbling, and neither Bush nor party intellectuals has come up with alternatives. More ominously, some of the social issues that Republican candidates are now running on—chief among them rigid opposition to abortion and a tendency toward gay-bashing—risk alienating the suburban independents who have given the party its winning margin.

In addition, the GOP seems to be losing its reputation as the party of fresh thinking and new ideas. For years, Democratic think tanks have been discredited havens for brain-dead liberals. By contrast, Republicans seethed with ideas—such as the thrust for creative federalism, deregulation, incentive economics, and "empowerment" of the underclass with market-oriented solutions to poverty. Now, Republicans are showing signs of intellectual exhaustion, as conservatism struggles for redefinition in a post-cold war world. "We need a new mission, new goals, and new principles," reflects Representative Henry J. Hyde (R-Ill.), a leading conservative. "Most of all, we need someone who knows where he's going to lead us."

To complicate matters, a continued Republican lock on the White House is no longer assured. The economy appears to be moving into a recession. Perceptions of the coming slump hurt GOP prospects on Nov. 6, and recessionary aftershocks could be a major problem for Bush in 1992. Gerald Ford's recession ended in March, 1975, but a halting recovery proved fatal to his election hopes 20 months later.

Then there's the Right. Hard-liners are so enraged about Bush's perfidy on taxes that a '92 intraparty challenge to the President is practically assured. "Conservatives are talking openly about taking on Bush," asserts Burton Yale Pines, senior vice-president of the Heritage Foundation. "They know a conservative won't win, but they will try to make sure that George Bush doesn't win, either."

Even if Bush manages to calm his restive party and win reelection, a potential succession crisis is brewing for the GOP. Congressional stalwarts such as Senate Minority Leader Bob Dole (R-Kan.) are growing too old to bid for party leadership. Former Representative Jack F. Kemp, now Housing & Urban Development Secretary, seems wedded to quaintly Reaganesque views. And other hopefuls, such as Texas Senator Phil Gramm and Arizona Senator John McCain, lack national stature.

Bush's anointed successor, Vice-President Dan Quayle, simply doesn't strike Americans as Presidential timber. An ABC News Election Day poll found that 53% of voters still regard Quayle as "not

★ IN TEXAS, RICHARDS OVERCAME WILLIAMS' 15-POINT LEAD DESPITE BUSH'S STUMPING FOR HER OPPONENT

THE SCORECARD

	HOUSE SEATS*	SENATE SEATS	GOVERNORSHIPS*
DEMOCRATS	OLD 259 / NEW 267	OLD 55 / NEW 56	OLD 29 / NEW 28
REPUBLICANS	OLD 176 / NEW 167	OLD 45 / NEW 44	OLD 21 / NEW 20

DATA BW

*ONE INDEPENDENT ELECTED TO HOUSE, TWO ELECTED GOVERNOR

PHOTOGRAPH BY [illegible] CHART BY [illegible] DAVIS BW

qualified" to be President. But for the moment, Republicans are too busy licking their wounds from Campaign '90 to worry much about their long-term prospects. Some key reasons for Republican Party unhappiness:

■ **The Senate.** Minnesota Republican Rudy Boschwitz was upended by flat-broke, frizzy-haired college professor Paul Wellstone, a liberal who capitalized on the incumbent's role in protecting the wealthy from tax hikes. Another disappointment: Hawaii Representative Patricia Saiki, who had led in polls the entire race, fell short in her challenge to appointed Senator Daniel K. Akaka. Saiki was one of five promising House Republicans who took on weak Democratic incumbents. All five lost.

There were some bright spots for the GOP. Jesse Helms turned back a stiff challenge from black former Charlotte (N. C.)Mayor Harvey Gantt, largely by galvanizing rural voters with menacing TV ads that highlighted Gantt's race and liberalism. "If the liberal politicians think I've been a thorn in their side," Helms told a cheering throng at a Raleigh hotel, "they haven't seen anything yet."

Republicans also held all three open Senate seats. And they were heartened by the scare voters threw into New Jersey's Bill Bradley, who nearly lost by failing to distance himself from Governor James J. Florio's soak-the-suburbs tax policies. "For all of you who are dissatisfied," a chastened Bradley told voters who deserted him, "I understand. I really do."

Senator Don Nickles (R-Okla.) insists that the GOP "will have the numbers to sustain the President's vetoes." But the Senate upheld Bush's veto of the civil rights bill by only one vote, a sign that the White House will have to choose its veto fights more carefully.

■ **The House.** Reeling from the loss of nine seats, Republicans now have only 167 seats in the House, compared with the Democrats' 267. (And the House's newly elected Socialist, Vermont's Bernard Sanders, will caucus as a Democrat.) Particularly galling was the Republicans' blowout in the fight for open seats: They lost 17 of 29.

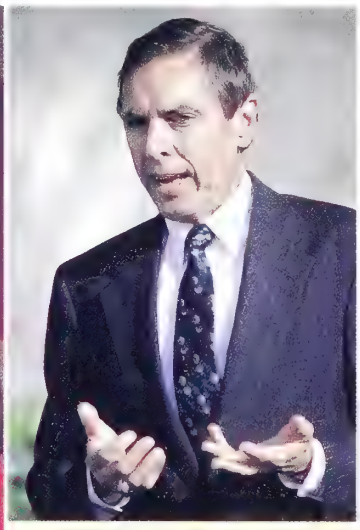
Of the 15 House incumbents who were turned out, nine were Republicans. Most surprising, conservative firebrand Newt Gingrich, who broke with the President over taxes, came within an eyelash of losing his suburban Atlanta seat. "Newt obviously upset people with what he did in Washington," says John Havic of Georgia Institute of Technology. "Voters felt he was throwing sand into the system." Adds LeRoy Johnson, the Democratic chairman of the Coweta County Commission: "People didn't like it that Mr. Gingrich didn't come around here as much as he used to."

■ **The Statehouses.** With reapportionment looming, the battle for control of governorships and state legislatures has taken on added importance. Republicans are most upset about Texas, where oilman and rancher Clayton Williams blew a 15-point lead in losing to State Treasurer Ann Richards. Williams' verbal fumbles and inexperience turned off women and city dwellers, enabling the liberal Richards to squeak by—and have final say in drawing up the state's three new districts.

Bush campaigned furiously in his home state against Richards, so the loss is doubly painful. Says George C. Shipley, an Austin-based Democratic pollster: "He begins his Presidential race with a stubbed toe."

The Republicans also lost Florida, where incumbent Governor Bob Martinez fell before the folksy challenge of ex-Senator Lawton M. Chiles. The Democrat benefited from his Mr. Clean stance on campaign funding, his pro-choice views on abortion, and Martinez' flip-flopping on taxes. Democrats believe that the last of the President's three campaign visits to the state merely served to remind voters that the incumbent had also ditched a no-tax pledge to back an unpopular tax on services.

GOP stalwarts found some comfort scattered over the political map. Their biggest win was in California's crucial governor's race, where Senator Pete Wilson topped former San Francisco Mayor Dianne Feinstein. The combatants spent a record-shattering $33 million. Elsewhere, GOP candidates won statehouses in Michigan, Massachusetts



★ ONE TELLING ELEMENT OF FLORIDA DEMOCRAT CHILES'S WIN OVER GOVERNOR MARTINEZ WAS THE CROSSOVER OF PRO-CHOICE REPUBLICAN WOMEN

★ CALIFORNIA'S WILSON: HE SPENT $20 MILLION TO BEAT FEINSTEIN

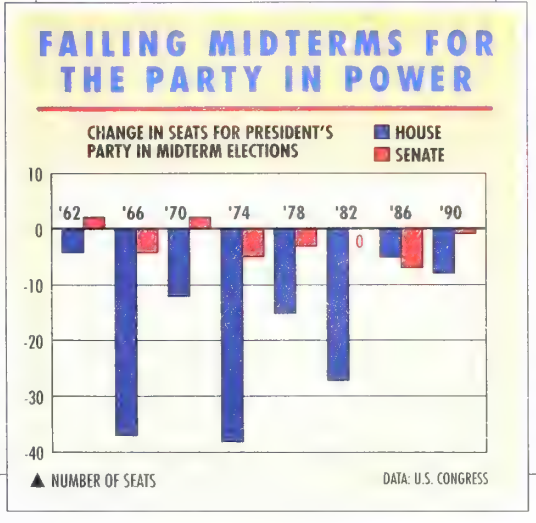
★ NORTH CAROLINA'S HELMS: "IF THE LIBERAL POLITICIANS THINK I'VE BEEN A THORN IN THEIR SIDE, THEY HAVEN'T SEEN ANYTHING YET"

)hio, and Illinois. Bush's tax switch robably played a key role in the latter ace—and for once, it helped the GOP.)emocrat Neil Hartigan ran on a no-tax ledge, while Secretary of State Jim Edar insisted that meat-ax cuts would ripple essential services. Illinois pols peculate that Bush's tax flip-flop undermined Hartigan. "The Bush switch alled into question [Hartigan's] credibily," says Donald Haider of Northwestrn University.

A BAD JOKE.' Republicans reserved pecial joy, however, for New York, here Democratic Governor Mario M. uomo tallied a less-than-stellar 53% gainst two slapdash challengers. rows GOP media maven Roger Ailes: For Mario Cuomo to get less than 0% was a bad joke."

Yet despite satisfaction over Cuo-o's comeuppance, the loss of mega-tates Florida and Texas clearly sored GOP redistricting experts. They ear that Democratic gerrymanders ill set Republicans back a decade in eir attempts at realignment. "This ill slow us down," concedes Florida OP Chairman Van B. Poole.

It could do more than that. The Republicans' political woes transcend this election, and perhaps the next. For starters, the party's political apparatus badly needs an overhaul. With Chairman Lee Atwater sidelined by a brain tumor, the Republican National Committee is leaderless. White House staff chief Sununu has tried to pick up the slack. But GOP insiders believe he relies far too much on his own headstrong political instincts and bemoan the lack of talent in the Sununu political shop.



Bush seemed to sense Sununu's limitations late in the campaign, when he turned to outside pollster Robert M. Teeter, California consultant Stuart Spencer, and media meister Ailes to help with strategy. Although Sununu's job seems secure for now, it is increasingly likely that he'll find himself working side by side with seasoned GOP veterans after the election. "There's no political A-team at the White House now," laments a top GOP operative. "There's Sununu and an F-team."

The infighting won't end there. Next, Bush will press his campaign to dump House GOP strategist Rollins, who advised candidates to break with the President over taxes. The betting is that Rollins will pack his bags and his $1 million contract and depart soon after the election.

The White House is even picking a fight with Rollins' boss, Michigan Representative Guy Vander Jagt. The Administration wants to replace him with Don Sundquist, an obscure Tennessee congressman. If Bush fails, the resulting loss of prestige would complicate his already difficult job of keeping the House GOP in line. More

blood could flow as splintered House Republicans choose between guerrilla warriors led by Gingrich and moderates led by Minority Leader Robert H. Michel of Illinois. Both men could face challenges, turning the House GOP into a cauldron of backbiting and intrigue.

'SHIFTING BACK.' These intraparty feuds signal a widening split within Republican ranks over economic policy and the U.S. role in a world where the communist menace has ebbed. Ronald Reagan built an unlikely coalition of country-club Republicans, cultural and religious conservatives, blue-collar Democrats, and young voters who liked the Gipper's stress on economic growth. But lacking Reagan's magnetic personality—and losing the GOP glue of ritual anti-communism and opposition to taxes—Bush is presiding over a fractured party coalition.

Establishment Republicans believe that deficit-reduction is still noble work, and that Bush should be praised, not reviled, for biting the bullet on taxes. But by accepting tax increases, the Administration has given up the main issue that distinguished the party from the Democrats. Blue-collar voters, for their part, appear susceptible to the Democratic gambit of casting Republicans as the protectors of the rich. "Voters, who fell in love with Reagan and flirted with Bush, are shifting back," says Richard C. Frese, a professor of government at Bentley College.

Republicans' claim to the vote-rich suburbs is also facing a new challenge. The party's antiabortion position and harsh attacks on gays risk alienating the independent swing voters. These people have been attracted to the GOP mostly by the party's promise of economic growth. In Texas and Florida, winning Democrats bolstered their traditional core vote with a new coalition that included pro-choice Republican women. "This shows a maturity on the part of Republicans," contends Florida victor Chiles. "Party affiliation is not going to be as important from here on out."

After the election, true-blue Reagan conservatives will insist that Bush recant on taxes and come home to the old verities of anti-government crusading and blasting congressional Democrats. But Bush can't take back his tattered tax pledge, and with his resumé, he can hardly duplicate Reagan's trick of running as an outsider. "Bush can't deliver on the conservatives' agenda," says Bruce Oppenheimer, a University of Houston political scientist. "That means nothing gets done for the next two years."

★ **CRACKS IN THE WALL: SOME 53% OF VOTERS STILL CONSIDER QUAYLE "NOT QUALIFIED" TO BE PRESIDENT, GOP INSIDERS SEEM TO HAVE LOST FAITH IN SUNUNU, AND GINGRICH IS LEADING DISSENT IN THE HOUSE**

BLOWING IT. Republicans, though clearly disturbed by these trends, characterize some of their problems as inevitable. "Ten years of success breeds complacency," says the GOP's Rollins. "We're fat, dumb, and happy."

But with the party's ranks in Congress dwindling, a recession on the horizon, and the prospects for war in the Persian Gulf growing, Republican Party unity will be tested as never before. George Bush's hole card may be the Democratic Party's tendency to misplay any strategic opportunity it is handed.

How could the resurgent Democrats blow it? Let us count the ways. Congressional leaders could ignore the warnings fired across Bill Bradley's bow and return to Washington vowing to resume the populist rhetoric that worked so well this year. By crusading for a 35% top bracket for the rich and dusting off calls for a 10% income tax surcharge on millionaires, Democrats could invite Republicans to claim that Democrats intend to soak the middle-class, too. Says University of Virginia political scientist Larry J. Sabato: "Tax-and-spend isn't just a slogan. It's what the Democrats believe in."

Democrats also have internal problems of their own that could prevent them from taking advantage of their good fortune. Their most faithful constituency is black voters, whose economic interests collide head-on with concerns of the white middle-class. No one thinks the Democrats' schizophrenia has been solved by the Republican stumble—and few pols believe that populist rhetoric will be able substitute for coherent economic policies. Says the Heritage Foundation's Pines: "The Democrats will surely overplay their hand, and that will save us."

What's novel about all this? For the first time in ages, Republican strategists are openly discussing their party's political vulnerabilities—and are counting on opponents' miscues for salvation. As the Democrats learned in a decade in exile from the White House, that's no way to build a dominant party.

Look at the elections in 1990 as a kind of wake-up call for the Republicans. But with George Bush and his brawling minions otherwise engaged in a divisive round of intraparty squabbling, the question remains: Is anybody listening?

By Lee Walczak, Paula Dwyer, Douglas Harbrecht, and Howard Gleckman in Washington, with Walecia Konrad in Atlanta, Chuck Hawkins in Raleigh, Wendy Zellner in Austin, Antonio N. Fins in Orlando, David Greising in Chicago, and Joan O'C. Hamilton in San Francisco

THE LITTLE WORD HEARD COAST TO COAST: NO

Voters vented frustration on ballot initiatives and bond issues

His San Francisco seat is one of the safest in the nation. But no one was running more scared during the past month than Willie Brown, the Democratic speaker of California's state assembly. Brown's opponent: a pair of term-limitation initiatives. A clear manifestation of voter resentment, term limits set a ceiling on the number of years an elected official can stay in office.

Brown, a master fund-raiser, pulled together nearly $4 million to battle the initiatives. To no avail: On Nov. 6, Californians approved the stricter of two measures. "People get tired of an assembly that doesn't work, a governor that won't lead, and problems that don't get solved," says Sherry Bebitch-Jeffe, a senior associate at the Claremont Graduate School's Center for Politics & Policy. "And it is happening all over the country."

Politicians of all stripes should take heed. Not only are voters warning incumbents not to get too comfy, they are also putting politicians on notice that the public isn't in a spending mood. With few exceptions, voters rejected proposals to raise taxes or launch new spending programs (table).

LEANED GREENS. Californians acted most dramatically. Of 28 propositions on the ballot, only six passed. All four major environmental initiatives died, including Proposition 128, the sweeping "Big Green." Also voted down: a pair of measures to increase alcohol taxes, other taxes to fund mass transit and drug programs, and 12 of 14 bond issues. "The fact is that the people simply want even more serious and fundamental change than they are getting from politicians or the initiative process," says California Assemblyman Tom Hayden, a sponsor of Big Green.

That was the sentiment that seemed to ripple through much of the country. New Jersey voters, seething over a $2.8 billion tax increase, rejected a $135 million bond measure for affordable housing. Pennsylvania voters approved two measures for $225 million to expand prisons and rescue troubled companies, but voters in Virginia and New York rejected other bond measures.

Big winners this year were industry groups that fed growing voter dissatisfaction with millions of well-placed dollars. Chemical and agricultural companies shelled out more than $17 million to defeat Big Green. The Coalition for a Green Georgia—including 11 timber companies—spent heavily to roll back the industry's taxes by an estimated $90 million annually. The coalition played down the tax-rollback angle, characterizing the issue instead as an effort to save trees.

Nowhere was industry money spent more lavishly than in California, where alcohol and cigarette companies allied to spend more than $20 million to stop a big increase in taxes on beer, wine, and spirits. They defeated both the initiative and a watered-down industry alternative. "It's quite clear that the voters' mandate was to say no to additional taxes," says Thomas A. Aldrich, a vice-president of Anheuser-Busch Inc., which sells half the beer drunk in California.

Still, for all their unhappiness with their elected representatives, voters showed no eagerness for sweeping changes in how they do business. Massachusetts voters turned aside a $2 billion tax rollback, even though winning gubernatorial candidate William Weld supported it. Colorado and California voters rejected measures that would require voters to approve any new tax hikes.

But incumbents can't afford to take much comfort from voters' refusal to adopt radical solutions to chronic problems. The term-limit trend that got its start in Oklahoma's September primary hit a pinnacle of sorts in Colorado on Nov. 6. Voters there overwhelmingly approved an eight-year ceiling for state legislators and approved a provision that limits members of Colorado's congressional delegation to 12 years in Washington. That part of the referendum may fall to a constitutional challenge in court. But even if it's overturned, the term limit sends politicians a clear message: Don't give up your night job.

By Ronald Grover in Los Angeles, with bureau reports

HOW VOTERS HANDLED KEY BALLOT ISSUES

TERM LIMITS

✓ **COLORADO** Voters overwhelmingly approved limits for state and federal elected officials. The restrictions on national officeholders face a court test

✓ **CALIFORNIA** Voters approved limits for state officeholders

✓ **OKLAHOMA** In September, voters approved, by better than 2-to-1, a constitutional amendment to limit state legislative terms to 12 years

TAX CEILINGS OR ROLLBACKS

✓ **MASSACHUSETTS** A proposition to cut state taxes by $2 billion—some 15% of the budget—was soundly beaten

✓ **CALIFORNIA** Voters defeated a 5¢-a-drink tax on alcoholic beverages and an industry-sponsored constitutional amendment to roll back liquor taxes

✓ **COLORADO** Voters barely defeated a plan to put all tax increases to a public vote, roll back property taxes over a 10-year period, and cap increases on business and personal taxes

ENVIRONMENTAL INITIATIVES

✓ **CALIFORNIA** Voters, asked to choose among a bewildering array of environmental proposals, just said no to all of them

✓ **NEW YORK** Voters rejected a nearly $2 billion environmental bond issue

✓ **GEORGIA** A tax rollback for timberlands was pitched to the voters as an effort to save trees. The initiative passed, despite press accounts that detailed the paper industry's hidden support for the rollback

DATA: BW

COVER STORY

NOW, THE DEMOCRATS REALLY HAVE A LOCK ON THE HOUSE

They will have unexpected clout in the redistricting of key states

It seemed well within their grasp. After 36 years, it appeared that Republicans might finally break the Democrats' lock on the House. But that key GOP goal slipped out of reach on Nov. 6. Election outcomes, especially in races for governor and state legislature, all but guarantee that the Democrats will retain control of the House into the next century.

Next year, legislatures in all 50 states will redraw their congressional maps to adjust for population shifts since 1980. Demographics appeared to be on the Republicans' side: Nineteen seats will move from Democratic strongholds in the Northeast and Midwest to the South and Southwest. Even in states with no net change in representation, voting strength is shifting to normally more Republican suburbs.

AVERTING DISASTER. But election returns leave the GOP poorly positioned to cash in. Democrats control the legislatures of 32 states and hold one house in 11 others. They also have the governorships of 28 states, with Republicans holding 20 and independents 2. This leaves full control of the redistricting process for the GOP in only four small states, none of which has gained or lost seats.

The crucial victories for the Democrats were gubernatorial triumphs in Florida, which picks up four seats in reapportionment, and Texas, which gains three. The Democrats will now be able to draw new district lines in ways that maximize their chances of winning new seats in these two megastates, which have been trending Republican. Continued Democratic control of both the legislature and governorship in Georgia and Virginia—plus newly won control of the legislature in Washington—means the GOP will have little say in creating 10 of the 19 new congressional districts.

Hanging on to the governorship of California helped Republicans avert a true reapportionment disaster. Governor-elect Pete Wilson can stop the sort of creative Democratic line-drawing that checked GOP gains after the 1980 census, when Democrat Edmund G. Brown Jr. was governor. "We sure as heck are not going to stand for another Democrat-controlled gerrymander," says state GOP Chairman Frank Visco. But the Democrats still control the legislature, so the best Wilson can do is use his veto to force the Dems to give the GOP an even break. There's no way he can push through a plan favoring the GOP.

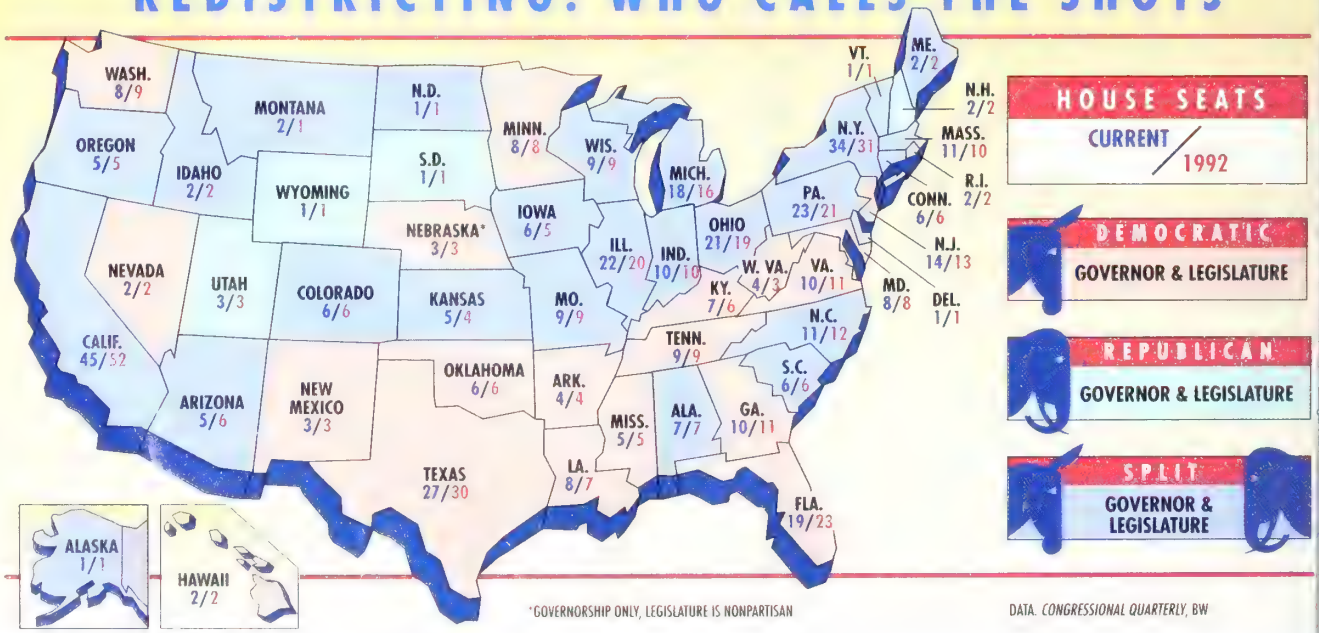
'FAIRER MAPS.' While the Democrats did surprisingly well in the fast-growing Sunbelt, they suffered major blows in some states that are losing representation. Democrats are particularly vulnerable in Michigan, which must give up two seats, because the victory of Republican Governor-elect John Engler leaves the Democrats controlling only the lower house. "If they draw up a fair plan, two Democratic seats would disappear," says Republican consultant John A. Morgan. The election of George Voinovich as governor of Ohio, which also loses two seats, is another boost for the GOP.

Elsewhere, Republicans may have to go outside the political system to protect their interests. The Voting Rights Act, which requires that majority black or Hispanic districts be drawn wherever possible, limits Democrats' creativity in redistricting. The GOP has also been working with minority groups to prepare potential legal challenges to Democratic plans. "We will be able to stand up for fairer maps in far more districts," says Benjamin L. Ginsberg, chief counsel of the Republican National Committee.

Still, legal expertise and computerized map-drawing is no substitute for control of a legislature. The Democrats proved that when they frustrated Republican hopes of big gains through reapportionment in 1981. Odds are, they'll do it again next year.

By Susan B. Garland in Washington with Ronald Grover in Los Angeles

REDISTRICTING: WHO CALLS THE SHOTS



*GOVERNORSHIP ONLY, LEGISLATURE IS NONPARTISAN

DATA: *CONGRESSIONAL QUARTERLY*, BW

WANTED: KNIGHT IN SHINING ARMOR. APPLY, DEMOCRATIC PARTY

Currently, none of the '92 hopefuls has the national appeal to beat Bush

Until George Bush's October swoon, conventional wisdom held that Democrats had only the slimmest chance of winning the White House in 1992. Now, party power brokers are feeling better—somewhat. They sense Bush's growing vulnerability, but they lack a political leader of sufficient stature to exploit the opportunity.

Gloating about his party's gains, Democratic National Committee political director Paul Tully declares: "We have just seen the first defining event of the Presidential campaign. We offer an alternative." Then he pauses. "Now for a candidate. We need a big guy..."

Instead, what the Democrats have is a motley collection of political niche players. Each '92 hopeful has a strong claim on a limited segment of the political market but lacks broad national appeal. Consider the Democrats' leading men:

The Mario Scenario. The success of the tax-fairness issue in 1992 raised the stock of New York Governor Mario M. Cuomo, the party's leading advocate of traditional, redistribution-first liberalism. Cuomo wants the Democrats to soak the rich, a position that should keep him in the limelight next year. The Governor's backers envision a triumphant Cuomo procession through the primaries, capped by a coronation at the New York nominating convention.

What's wrong with this picture? Cuomo's unimpressive margin of victory on Nov. 6 shows his act may be getting old, even in New York. He will turn off huge chunks of the country, especially the South. And his thin skin and arrogance are sure to cause him trouble in the heat of a campaign. Cuomo is bright and combative, but he seems to think that couching his message in ethnic warmth can sell. "Cuomo's problem is that he speaks in traditional Democratic rhetoric," says William Schneider of the American Enterprise Institute. "He'll rerun the Mondale campaign of 1984. It will be glorious and dignified. But it's a loser."

White-Bread Populism. House Majority Leader Richard A. Gephardt (Mo.) test-marketed "us vs. them" politics in his 1988 Presidential bid, and he skillfully maneuvered Bush into opposing tax increases for millionaires during this year's budget debate. But to many, Gephardt comes off as too bloodless and too much of an insider to be a convincing salesman for the politics of resentment. What's more, political pros question his reliance on economic populism. "Grand schemes for redistributing wealth don't get you very far with the middle class," says one top Democratic operative.

FRONT-RUNNERS (CLOCKWISE FROM LEFT): NATIONAL SECURITY EXPERT NUNN LACKS CHARISMA. CUOMO'S STAR MAY BE DIMMING—EVEN IN NEW YORK. GEPHARDT'S "US VS. THEM" ACT GETS MIXED REVIEWS

The Southern Strategy. Democrats nurture the dream that they'll find a moderate who can do what none of their nominees has done since 1976: carry the South. "The 1990 elections have shown conclusively that if Democrats don't get sucked into liberal orthodoxy and class-warfare rhetoric, they can win anywhere," says Alvin From, executive director of the moderate Democratic Leadership Council.

That's the idea motivating Albert Gore Jr. (Tenn.). The young Senator tried to use his Southern base to launch his 1988 Presidential bid but found little support outside the region.

Georgia Senator Sam Nunn's expertise in national security issues assures him a key role in the continuing debate over defense policy. But his ponderous stump style and conservative bent give liberal activists hives. "The Southern strategy makes it difficult to get to the nomination," says Democratic consultant David Doak. "And Democrats are in no mood to nominate someone who sounds like George Bush."

One Southerner who might break out of the niche is Senator Lloyd Bentsen (Tex.), who looked more like Presidential timber than running mate Michael S. Dukakis in '88. But Bentsen seems much older than his 69 years and has shown little enthusiasm for another run.

The Jesse Factor. Jesse Jackson won't get the 1992 nomination. But if the eventual nominee appears, like Dukakis, to be negotiating with Jackson, the nomination may not be worth much. "Jesse Jackson is a net Republican asset," says University of South Carolina political scientist Earl Black.

Bland is Beautiful. If Democrats decide that voters are ready for a stolid, uncharismatic legislative mechanic, they can turn to Senate Majority Leader George J. Mitchell (Me.). But like New Jersey Senator Bradley, who barely beat a challenger he was supposed to trounce, he's in no position to capitalize on the anti-Washington mood of the electorate.

Darker Horses. Senator Bob Kerrey (Neb.) mixes populist appeal, matinee idol looks, and a war hero's record. Governor Bill Clinton (Ark.) has won favor with his moderate politics and his stress on education. But party elders view them more as potential Vice-Presidents.

Pundits. Possibilities. Prospects. The newly optimistic Democrats have them in abundance. What they haven't yet found is a Reaganesque figure who can harness voter resentment and ride it all the way to the White House.

By Douglas Harbrecht in Washington

THE ECONOMY

YOUR GUIDE TO THE SLUMP— HOW SOON, HOW LONG, HOW DEEP?

The numbers to watch if you want to judge for yourself

For the past few weeks, pollsters and pundits have told you how you feel about politicians, war, and the economy. Now you've voted—or decided not to. You're probably still anxious about the Middle East. But the economy, well, the economy's still a question mark. Economists are warning of impending recession, but even they can't agree. Some figure on a mild one. Others are guessing we're in for a deep downturn. The media, meanwhile, seem to seize on every scrap of bad news.

So how do you decide just how worried you should be? Don't shoot the messengers—but don't let them tell you how to think, either. Try to sort out the economic mess yourself. Herewith, some pointers and a little historical perspective on the road to recession:

■ **Jobs. Jobs. Jobs.** Nothing will tell you more about the economic outlook than the job picture. This is always true, although people tend to forget it. When jobs are being created and the unemployment rate is falling or flat, the economy is growing. But when jobs are lost and the rate starts rising, it's impossible for the gross national product to keep clocking good gains. With fewer jobs there's less income, with less income there's less spending, with less spending there's less production, and with less production there are still fewer jobs.

Since midyear, the Bureau of Labor Statistics has been reporting job losses in the civilian economy, and over the past four months, the jobless rate has risen 0.4 percentage points, to 5.7% (table). Is this worrisome? Well, the trend certainly is, though the level may not be. One thing to be on the lookout for is a rapid escalation in the unemployment rate. "There has never been a post-World War II recession—nor a prewar one for that matter—during which there wasn't a sizable runup in the unemployment rate," says Francis Schott, economist at Equitable Life Assurance Society. Schott, who expects a mild recession lasting three quarters, thinks unemployment will reach 7% in mid-1991. Economists who are forecasting a deeper recession think it will move closer to 8%. That would be well below the 10.8% level of late 1982. A moderate gain in the rate may mask some pain, however. Economists note that labor-force growth has slowed this year and that discouraged workers who drop out don't show up in the unemployment data.

Other indicators can help fill out the job picture. When initial unemployment claims, a weekly measure, leapt to 454,000 recently, analysts let out a collective gasp. Historically, numbers over 400,000 are a danger sign. But if 454,000 people are filing unemployment claims today, that can't be as terrible as 454,000 filing 10 years ago because several million more people are in the work force now. Salomon Brothers Inc. economists measured claims as a percent of the labor force, and found that at 0.34% in October, this measure, while rising gently, is well below recession peaks.

■ **Income and spending.** When jobs are eliminated, incomes can't be far behind. Recent trends haven't been encouraging. Disposable-income growth after inflation has been just inching along this year and in the third quarter, the measure grew at a mere 0.8%, year-over-year. As recently as 1988, gains of 4% to 5% were common.

There are a lot of things at work here. Purchasing power has been eroded by higher oil prices and generally higher core inflation. Wages and incomes are being squeezed. Soon, too, higher federal income taxes, excise taxes, and state and local taxes will take another bite out of income, leaving less to spend. In previous recessions, there have been only intermittent periods when income was flat or declining, and the economy seems to be moving perilously close to that circumstance now.

With less money on hand, people cut spending—unless they dip into savings or borrow to sustain the lifestyles to which they are accustomed. In the third quarter, consumer spending rose while the savings rate fell to 4%, an indication that precisely that kind of accommodation was going on. So watch the savings rate, and watch consumer spending—especially spending on services. Since most people have to buy a minimum of services this measure doesn't contract during recessions. But if spending growth slows markedly, look out below. Service spending is one of the most telling indicators of whether the economy "will cave in hard," says Allen Sina.

SIGNS ON THE ROAD TO RECESSION

	Recent level*	81-82 recession level**
A DETERIORATING JOB PICTURE...		
Unemployment rate	5.7%	10.8%
Jobless claims as a percent of labor force	0.34%	0.55%
...AN INCOME AND SPENDING PINCH...		
Year-over-year growth in disposable personal income	0.8%	0.0%
Spending on services, annual rate	5.1%	0.7%
...FINANCIAL DISTRESS...		
Percent of residential mortgages on which payments are 90 days past due	0.67%	0.84%
...AND POOR EXPECTATIONS		
Consumer confidence index	61.3	54.3

*Latest quarter or month
**Worst quarter or month in period

DATA: THE CONFERENCE BOARD, DRI/McGRAW-HILL, MORTGAGE BANKERS ASSN , BW

of Boston Co. In the third quarter, this measure rose a healthy 5.1%.

Wild cards. The possibility of war is the biggest wild card. But there are many others. Topping the list for many economists is financial distress. The economy is entering a downturn with a heavy burden of debt, and if incomes and profits are squeezed, then mortgage delinquencies and business failures will rise. Thus far, delinquencies aren't bothersome: In the second quarter of 1990, the latest period for which data are available, the percentage of residential mortgages on which payments are 90 days past due was a modest 0.67%. As recently as 1986, the rate hovered around 1%, thanks to problems in the oil patch and the rust belt. Business failures, however, have begun to pick up. Dun & Bradstreet Corp. reports that they rose 14.5% in the first nine months of 1990, compared with a year earlier. Since measurement techniques changed in 1984, the number isn't comparable with data for previous recessions.

Another wild card is how weak or strong economic growth is in the rest of the world. If growth only slows, but doesn't stop, in continental Europe and Japan, then U.S. exports could remain the one relatively bright spot in the economy. Unexpectedly weak growth or a worldwide recession could easily dash those hopes. Other nations are slow to report economic data, so one way to get a feel for this might be to look at U.S. export orders themselves. Richard B. Hoey, chief economist at Barclays de Zoete Wedd Inc. in New York, notes that the latest report from purchasing managers shows a marked slowing in the index of export orders.

Expectations. External shocks can have a big impact on consumer confidence. The threat of war in the Middle East and the big jump in oil prices are credited with pushing the Conference Board's index down from 101.7 in July to 34.7 in August and September. October's further slide to 61.3 is more mysterious, however. Some blame the budget spectacle in Washington. What's important, though, is whether expectations affect behavior. If people curtail spending, and if businesses expect people to curtail spending, then the forces that make the economy contract may be set in motion.

The list isn't exhaustive, but it should be instructive. How policymakers in Washington cope with economic events will, of course, make a big difference (page 112). But don't overinterpret any single measure. In October, 1982, the consumer confidence index hit a low for the year of 54.3%. That just happened to be the last month of the recession, the month before the U.S. economy began its spectacular eight-year ascent.

By Karen Pennar in New York

Commentary/by Paul Magnusson

THE GATT TALKS: FORGET THE DARN DEADLINE

For four years, travel-weary negotiators for 100 nations have been shuttling among Geneva, Montreal, Brussels, and Punta del Este in Uruguay to fashion a mammoth trade accord. As the Dec. 7 deadline for an agreement nears, trade officials should be heaving a collective sigh of relief. Instead, all you hear is the sound of gnashing teeth.

The U.S. is hectoring the European Community to dismantle a vast and expensive system of farm handouts, export subsidies, and import barriers shielding the Continent's 10 million inefficient farmers. But the Europeans on Nov. 6 offered only token improvements to the system. And in return for these minor concessions, they are demanding that the U.S. give up strong safeguards against dumping and trademark piracy.

Despite the urge to keep the talks rolling, the U.S. shouldn't feel bound by an arbitrary deadline. U.S. Trade Representative Carla A. Hills should forge an alliance with other major agricultural exporting nations such as Canada, Argentina, and Australia and hold out for true farm-policy reform—even if that means delay.

TRADE-OFFS. The danger isn't a collapse but rather that the U.S. will cobble together an agreement just for the sake of agreeing. The cost of the trade-offs for manufacturing, which accounts for a majority of U.S. exports, could be substantial. The U.S. will be asked to give up important protections for its textile and steel industries, for instance. It also would be forced to forgo the present 25% tariff on small imported trucks. That would be especially damaging for Chrysler Corp., which relies on small trucks and vans for a good portion of its sales.

The Bush Administration has concocted all manner of dire consequences for a "failed" round of negotiations. Hills, whose every waking moment seems dedicated to the talks, has termed a breakdown "tragic," suggesting that it would lead "inevitably to heightened friction." The truth is far less apocalyptic. Under current rules, international trade is still booming. World merchandise trade has been expanding more than 6% a year by volume since the 1982 recession, reaching a record $3.1 trillion last year, according to officials from the General Agreement on Tariffs & Trade.

The U.S. is particularly well positioned. American exports of goods and services have been growing at a 6% rate over the past decade, according to the Organization for Economic Cooperation & Development. The recent decline in the dollar to record lows against the yen and the Deutschemark can only stimulate U.S. exports and help balance the trade accounts. And Hills has enjoyed surprising success employing some of the market-opening measures from the 1988 trade act, especially in Japan and other Asian countries. "We need to be prepared to admit that the world trading system won't fall apart without a grand success," says Clyde V. Prestowitz Jr., president of the Economic Strategy Institute.

At this late date, no one expects the Uruguay round to accomplish all it set out to do four years ago. When the trade ministers meet in Brussels in December, they will not initial some sweeping treaty covering 15 separate and highly technical trade topics, from services and agriculture to investment and intellectual property. At best, a modest package, with many details to be filled in later, is all that's possible.

But to get even that, the Bush Administration would have to pretend that the tiny concessions offered by the European ministers are worth moving the process along. Instead, the U.S. should try to get a better deal in Brussels by keeping the pressure on the Europeans. A delay of a month or two would likely produce a more favorable overall package. President Bush should keep in mind his original vow on the issue. That is: "No agreement is better than a bad agreement."

RESEARCH

TRAPPING THE LIGHT FANTASTIC

Bellcore's holographic memory may revolutionize data retrieval

Holograms are familiar attractions in science museums. Most people walking around the three-dimensional images floating eerily in midair see curiosities. But computer scientists see something else. They've long hoped to use holograms as computer memories and get a quantum leap in performance.

Now, the dream of holographic computer memories is closer to reality. On Nov. 6, Bell Communications Research (Bellcore) announced it had cracked a critical technical barrier: retrieving data from a holographic memory using only semiconductor components. There are no moving parts, as in other systems. The key is Bellcore's invention in 1989 of the world's smallest laser—40 millionths of an inch across. Using the tiny semiconductor lasers, the Livingston (N. J.) lab built a retrieval system that's "extremely fast, robust, and compact," says researcher Ann Von Lehmen.

The data are stored in a crystal about the size of a sugar cube. It's made from a semiconductor material, such as gallium arsenide, that can be altered by laser light. Bellcore's tiny lasers are bundled in tight arrays, so each points to a separate storage location within the crystal. Data are retrieved by turning on the corresponding laser. Each location can hold from one character to 125,000 characters—enough to fill 30 sheets of printout paper—and can be pulled out in less than 1 billionth of a second.

WASTED TIME. That holds vast potential. In today's computers, the microchip "brain" is already so fast that it spends most of its time doing nothing as it waits for data to arrive from memory chips. This bottleneck is the major hangup in building faster computers. With holographic memories, computers should fetch data thousands of times quicker.

So far, though, Bellcore's little lasers can only retrieve data, not store it. But Microelectronics & Computer Technology Corp. (MCC), a research consortium in Austin, Tex., is working on a system that will do both—perhaps with Bellcore's technology. If MCC reaches its goal, holographic computer memories would make today's fastest disk drives seem like yesterday's vacuum tubes.

By Otis Port and Emily T. Smith in New York

INDUSTRIES

AT A NEW JERSEY TOYS 'R' US, BARBIE DOLLS ARE GIVING VIDEO GAMES STIFF COMPETITION

'BUT I DON'T WANNA PLAY NINTENDO ANYMORE!'

The video craze may have peaked—none too soon for U.S. toymakers

Mike Herndon, age 7, has been a fanatical Nintendo player ever since he got his first machine for Christmas three years ago. Not surprisingly, new Nintendo game software has usually topped his Christmas list. But this year, the boy is asking for more traditional gifts: board games, a chemistry set, or maybe a telescope. "I haven't heard a word about Super Mario Bros 3," the hot new Nintendo game, says Mike's surprised father, James C. Herndon, a St. Paul (Minn.) insurance executive. "It's kind of refreshing."

Mike Herndon is more than that to the beleaguered U. S. toy industry: He could be a godsend. "Nintendo has been sucking billions of dollars out of the [traditional] toy market," grumps Kenneth A. Bloom, a New Jersey-based executive vice-president for Hong Kong's Universal Matchbox Group Ltd., a maker of die-cast toy cars and trucks. Introduced in the U. S. in 1986, Japan-based Nintendo's nifty arcade-style game and software are expected to account for 90% of U. S. video game sales and an astonishing 21% of total U. S. toy sales—estimated at $12.3 billion at wholesale prices this year (chart). Meanwhile, companies whose toys don't zap, bleep, and flash have been hurting, partly because Nintendo has soaked up too much growth. Despite cost-cutting layoffs recently announced by some manufacturers, Wall Street has pounded toy stocks badly.

REMEMBER DOLLS? Now, for the first time, there are clear signs that the Nintendo craze is peaking. By yearend, 30% of U. S. households will have a Nintendo. With market saturation approaching, Nintendo of America Inc., the company's Redmond (Wash.) U. S. marketing arm, expects sales of the $100 basic game to fall by 12% this year, to 8 million units, and to plunge below 6 million units in 1991. Software sales by Nintendo and its licensees will keep mounting at a 15% or 20% clip, the company projects. But that's a big falloff, considering that sales more than tripled, to 50 million units, from 1987 to 1989. One sign of trouble: For the first time, discounting of Nintendo software is rampant. Some older titles have slipped to $19 from $39 last year.

The video slowdown should help traditional toymakers get through a rough Christmas. With recession looming, toy buyers at most big retail chains have been

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keeping inventories extremely tight. At Tonka Corp., for one, new orders through mid-October were off 8%, to $842 million. The toymakers hope for a late surge in orders to bail them out.

So far, companies with solid-selling dolls and action figures have been doing best. Hasbro Inc. has seen a surge in sales of its New Kids on the Block figurines and Cabbage Patch Kids dolls. At Mattel Inc., third-quarter profits were up 26%, to $48 million, on a 20% sales gain, to $490 million. Mattel expects Barbie Doll sales to jump 17%, to $700 million for the year, and its new Magic Nursery Dolls are also hot. Yet most rivals are lacking hit products. One way around that is to increase ad spending. Tyco Toys Inc. is adding $4 million in late-year spending to its $40 million 1990 ad budget. "If you don't jump-start sales, you risk getting cancellations from nervous retailers," says Michael J. Lyden, Tyco's senior vice-president for business development.

FEWER TURTLES. Next year, traditional toymakers hope for even greater demand. Not only are Nintendo sales projected to tail off, but this year's Teenage Mutant Ninja Turtles phenomenon is expected to wane. But Nintendo has made kids "more sophisticated" about playing with complex toys, says Lyden. So, Tyco is coming out with new radio-controlled toys, such as a new airplane and an improved version of its Hovercraft vehicle. With the dollar down, most of the companies are also pushing hard to get a jump on Nintendo in Europe. Mattel now gets over half its sales overseas, mainly from Western Europe. To get a start in Eastern Europe, it has introduced a new Friendship Barbie there. It goes for just $6, $5 less than the average Barbie.

But Nintendo won't surrender the joystick easily. It expects to sell 4.5 million of its $89.95 hand-held Game Boy machines this year, up from 1 million in 1989. Game Boy's margins are "very similar" to the basic machine's, says Bill White, Nintendo's U. S. ad director, but its growth is expected to slow next year, too. Meanwhile, like its competitors, Nintendo is boosting late-year advertising spending and pushing into Europe. It is also expected to come out with a more sophisticated 16-bit machine with better graphics, and it is trying to appeal more to adults, who already account for 39% of its players. If Jim Herndon is any indicator, at least part of Nintendo's strategy is working. He admits sheepishly to eyeing some new software he'd like to play on his son's now underused Nintendo.

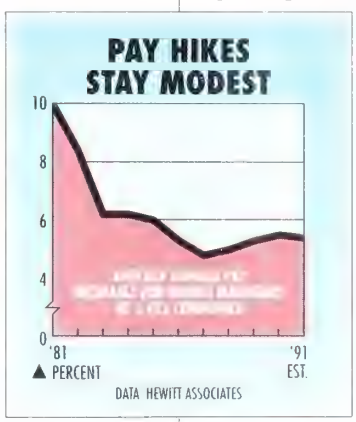
By Thane Peterson in New York and Maria Shao in San Francisco, with bureau reports

MANAGEMENT

YOU'LL PROBABLY GET A RAISE —IF YOU KEEP YOUR JOB

But increases will likely be small and may be linked to performance

Name the industry and chances are, pink slips are flying. But that doesn't mean surviving workers won't be receiving fatter paychecks in 1991. Despite layoffs, U. S. corporations are still budgeting average salary increases of 5%, according to a survey released on Nov. 6 by Towers, Perrin, Forster & Crosby, a New York management consulting firm. "Even though companies are trying to get down to the lowest staffing levels possible, they are still paying the people who are left fairly well," says Michael J. Halloran, vice-president of Towers Perrin.



Companies are notoriously tight-lipped on the subject of pay hikes. Of the more than 20 blue-chip corporations contacted by BUSINESS WEEK, only a handful were willing to divulge specific plans. Atlanta-based Bank South, for example, has budgeted 5% merit raises in 1991, even though it has laid off 300 people since the fall of 1989. First Union Corp., based in Charlotte, N. C., let 290 workers go this year, almost all of them at a recently acquired Florida bank. But it, too, has scheduled a 5% pay increase. "You can't pay people less than they can make elsewhere or they go elsewhere," says A. William Reynolds, chief executive of GenCorp Inc. The Fairlawn (Ohio) maker of aerospace and automotive products is also raising salaries 5% next year, even though it has cut 200 jobs in its aerospace unit.

CHANGING PLANS? Such increases are in line with pay hikes of the past two years (chart). But 1991 raises won't go as far if inflation persists at its current annual rate of 6.2%, up from 4.7% in 1989. And if the economy worsens, companies may try to keep their labor costs down by revising budget plans and limiting 1991 pay raises to 4% or less, says Geoff Wiegman, director of compensation consulting at Buck Consultants Inc. However, most employers would like their annual pay increases to keep pace with the cost of living, Weigman says.

As usual, employees likely will have little say in what the final numbers will be. A plentiful supply of newly unemployed workers is taking away what bargaining leverage they may have once had. "A lot of managers are in a double bind," says Sharon Gurwitz, a vice-president at Strategic Compensation Associates. "Many of their colleagues have lost their jobs, so they have to work harder, but they are also in a weak position to fight for more pay" beyond the going rate.

Financial services employees are feeling the pressure. At Citicorp, which is eliminating 2,000 jobs, salary review intervals for its 45,000 officers will be stretched to 18 months, up from 12 months, beginning Jan. 1. At the New York Stock Exchange, 64 officers have had their pay frozen for 1991.

Even when companies budget for raises, every worker can't count on getting one. Many employers have been trying to reduce fixed costs by linking pay increases to performance. A survey of 537 companies by the Conference Board last summer found that 82% of respondents had at least one program where pay fluctuates according to some standard. The most popular form of variable pay is awarding cash for an outstanding individual contribution, followed by incentive pay for employees who meet specific performance goals. "The days of incremental plodding salary increases based on tenure, not talent, are gone," says Burke Stinson, a spokesman for American Telephone & Telegraph Co. Raises at AT&T will be based on the performance of the company, the employee's unit, and the employee, says Stinson.

Such is the new reality in the American workplace. "If workers want to share in the prosperity, they must also accept some of the pain," says Jude T. Rich, chairman of Sibson & Co., compensation consultants based in Princeton, N. J. Still, any raise at all is a lot less painful than a pink slip.

By Monica Roman in New York, with Walecia Konrad in Atlanta

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MARKETING

IS HOWARD RUFF BUILDING A LITTLE PYRAMID?

His MainStreet America discount club is raising regulatory eyebrows

Recessions are always fertile ground for money-making schemes. And Howard J. Ruff, once the nation's premier prophet of doom and gloom, is ready with a plan to profit from the coming downturn.

On Nov. 7, the publisher of *The Ruff Times* newsletter launched a marketing operation in a teleconference beamed from Fort Lauderdale, Fla., to some 5,000 potential employees in 19 states. Ruff's venture, dubbed MainStreet Alliance, will package discounts for consumers on as many as 50 services from credit cards and hotels to groceries and mortgages. Its main selling point: Members not only would save money through the discounts but also could rake in cash by signing up new members.

Sound a bit like a pyramid scheme? Some regulators think so. "We are gathering information" on MainStreet Alliance, says Joe Bizarro, a spokesman for the Florida attorney general. "If we find it is unlawful, we will move very quickly against it."

'CROWN JEWEL.' Pyramid setups aren't necessarily illegal. Ruff claims his venture is as legitimate as Amway Corp. and Shaklee Corp., which sell consumer products through a chain of salespeople. Pyramid schemes cross the line when revenues from membership sales far exceed the money made from selling products and services.

The 59-year-old Ruff, who calls MainStreet Alliance "the crown jewel of my business career," has had a colorful career indeed. Once a staunch advocate of investments in precious metals, he has been a professional singer, an Evelyn Wood speed-reading franchisee, and a distributor of vitamins and dehydrated foods. He also wrote the 1978 best-seller *How to Prosper During the Coming Bad Years.*

MainStreet Alliance may be his most controversial endeavor. That's because on the surface it's hauntingly similar to FundAmerica Inc., based in Irvine, Calif., whose founder, Robert T. Edwards, was charged in Florida on July 19 with securities fraud and running an illegal pyramid scheme. Edwards has pleaded innocent. His Miami lawyer, Neal R. Sonnett, says Edwards "founded and ran an honest company."

Ruff is quite familiar with FundAmerica. After he sold 1,000 memberships to his newsletter subscribers and then Edwards was indicted, the board asked him to run FundAmerica. A week after he started last summer, he was fired for alleging at a press conference that Edwards had put some of FundAmerica's money into overseas accounts. The company now is in Chapter 11 bankruptcy proceedings in California.

Although FundAmerica had its share of legal and financial problems, MainStreet is imitating many of its practices. The discount program is similar. MainStreet members, who pay a $40 initiation fee plus $150 annually, will have to rack up an as-yet-undetermined amount in rebate credits for products and services they buy before receiving cash refunds.

MainStreet also plans to launch operations in the seven Western states and Florida, where FundAmerica thrived. Ruff expects to sign on many of the earlier project's estimated 80,000 members and almost half his 50,000 newsletter subscribers. And Ruff's operation will employ some of FundAmerica's sales force. That prompted at least one former Ruff colleague to drop out of the venture. "MainStreet Alliance just looks, tastes, and smells too much like FundAmerica," says the defector, who didn't want to be named.

'SQUEAKY-CLEAN.' Ruff, who has long dispensed apocalyptic financial advice in the newsletter, insists his operation is on the up-and-up. "We've structured this with the best counsel available to be absolutely squeaky-clean," he says. The main difference between the two, he says, is MainStreet's marketing structure, which provides less incentive to make money only from the sale of memberships. Florida regulators found that 98% of FundAmerica's revenues came from recruitment of new members.

But regulators say that whether MainStreet Alliance passes scrutiny will depend on whether its services sell. And Ruff admits consumers can get many of his discounts on their own. "What you're buying is your time not to have to do all that shopping," he says.

Most pyramid schemes fall between the regulatory cracks. Unless they involve securities, the Securities & Exchange Commission has no jurisdiction. Many regional offices of the Federal Trade Commission don't consider them a top priority. And state laws vary in their toughness. "There are scores, if not hundreds, of illegal pyramid schemes operating in the U.S.," says Florida prosecutor Marty E. Moore. "It's impossible for state regulators to stay on top of all of them."

But Ruff's high-profile campaign has caught their eye. By borrowing heavily from FundAmerica's concept, Ruff may be inviting rough times for himself.

By Catherine Yang in Washington

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DITED BY HARRIS COLLINGWOOD

IACY'S MONEY WOES ASE UP A BIT

R. H. Macy gained a mea- ire of relief from its cash unch. The struggling de- artment store company will ise up to $150 million in eq- ity from investors in its 1986 veraged buyout, including least $100 million from eneral Electric Capital, oews, Mutual Series Fund, id Taubman Investment.

It was the second time in a onth that the huge retailer, hose current cash flow bare- covers interest costs and pital expenditures, has ored up its finances. In mid- ctober, Macy's agreed to sell credit-card finance units r $100 million. Management ys that it will use proceeds om both transactions to re- y bank debt and repurchase nk bonds. That could reduce tal interest costs in fiscal 91 by an estimated $230 mil- n, to about $505 million. ill, Macy's intends to seek ldditional equity from new in- stors after Jan. 1.

Like other department ores, Macy's has also pared ventory—to $3.5 billion, out $600 million less than a ar ago—in an attempt to oid the margin-busting arkdowns that occurred dur- g last year's key Christmas ason. But balky consumers uld still ruin its plans. "If meone starts discounting, ey'll have to, too," warns ederick Taylor, a Salomon others bond analyst.

EVOLT AT EIMAN MARCUS

Nothing at Neiman Marcus mes cheap. Not even its ock—as General Cinema und out on Oct. 30 when it fered $14.40 a share for the % of Neiman stock it didn't ready own. The stock then as trading at 11¼, near a -week low. But General Cin- na was forced to pull the fer in less than a week fol- wing a shareholder revolt. General Cinema's price "was far below what anyone who has been a long-time shareholder would expect to get," said shareholder Stanley Marcus, the 85-year-old co-founder of the store that bears his name.

Chances are that General Cinema will unveil a new offer. Neiman contributed 90% of General Cinema's $92.4 million in operating earnings last year and spun off millions in tax-advantaged dividends. And with the movie theater business in a long-term decline, retailing is critical to General Cinema's future. The question is whether the company will come back quickly with a higher offer or wait to see if the retailing slump drags Neiman's stock price down further.

A MUCH-NEEDED LIFT FOR PAN AM'S PILOTS

▶ Pan Am's pilots got a big boost in their bid to buy the Pan Am shuttle from its ailing parent. Houston investor Gordon Cain, who raked in millions during the 1980s for himself and his employees via chemical company LBOs, has offered to help the pilots. Cain would pump in 10% of the equity and woo banks.

While Pan Am Chairman Tom Plaskett on Nov. 7 said he would welcome a formal bid, he added tough industry conditions may prevent a sale for now. Indeed, former shuttle chief Bruce Nobles says he and an investor group earlier were told the shuttle had been taken off the market.

AND NOW, CUISINE *HYDROELECTRIQUE*

Is Commonwealth Edison, a big Midwest utility, turning one of its power plants into a giant crock pot? You see, ComEd is trying to fend off Zebra mussels, pesky mollusks that threaten to clog the system that drives ComEd's generating station in Hammond, Ind. On Nov. 5, ComEd launched its counteroffensive. It's heating the water circulating through the plant to 90F. Basically, it's trying to cook the shellfish to death.

It's too soon to tell whether ComEd's gambit will succeed. Company officials dearly hope it does—they could use a change of luck. Chicago Mayor Richard Daley says he may retaliate for two blackouts last summer by yanking ComEd's $2 billion franchise for the city. And shareholders are mad because ComEd's earnings per share sank 94%, to 19¢, for the year ended May 31. You might say steamed mussels are part of a recipe for a turnaround.

RUSSIA'S FIRST STOCK EXCHANGE

▶ A motley crew of reform-minded Soviets gathered on Nov. 5 to found the Moscow International Stock Exchange. The Russian Republic's Finance Ministry brought together three fledgling commercial banks, the Russian Republic's system of savings banks, and several financial and economic institutes to create the exchange, which may begin trading by yearend.

By setting up the exchange, the Russian federation gets a jump on the central government, which plans to establish a stock exchange early next year. Among the first securities likely to be traded on the MISE: High-paying Russian Republic government bonds issued to cover the republic's 1991 budget deficit.

UPI AND A CHUNK OF FNN ARE UP FOR GRABS

▶ Two big names in the news business are on the block. On Nov. 7, Infotechnology, a closely held New York media company, said it wants to sell off its principal operations, which include United Press International, a 47% interest in Financial News Network, and a hodgepodge of other outfits.

The announcement follows a string of developments that suggest a bleak future for the company: the removal of founder Earl Brian from operating duties, the dismissal of auditor Deloitte & Touche, and the firing of FNN's chief financial officer for taking $795,000 in compensation that FNN says was "not properly authorized." ▣

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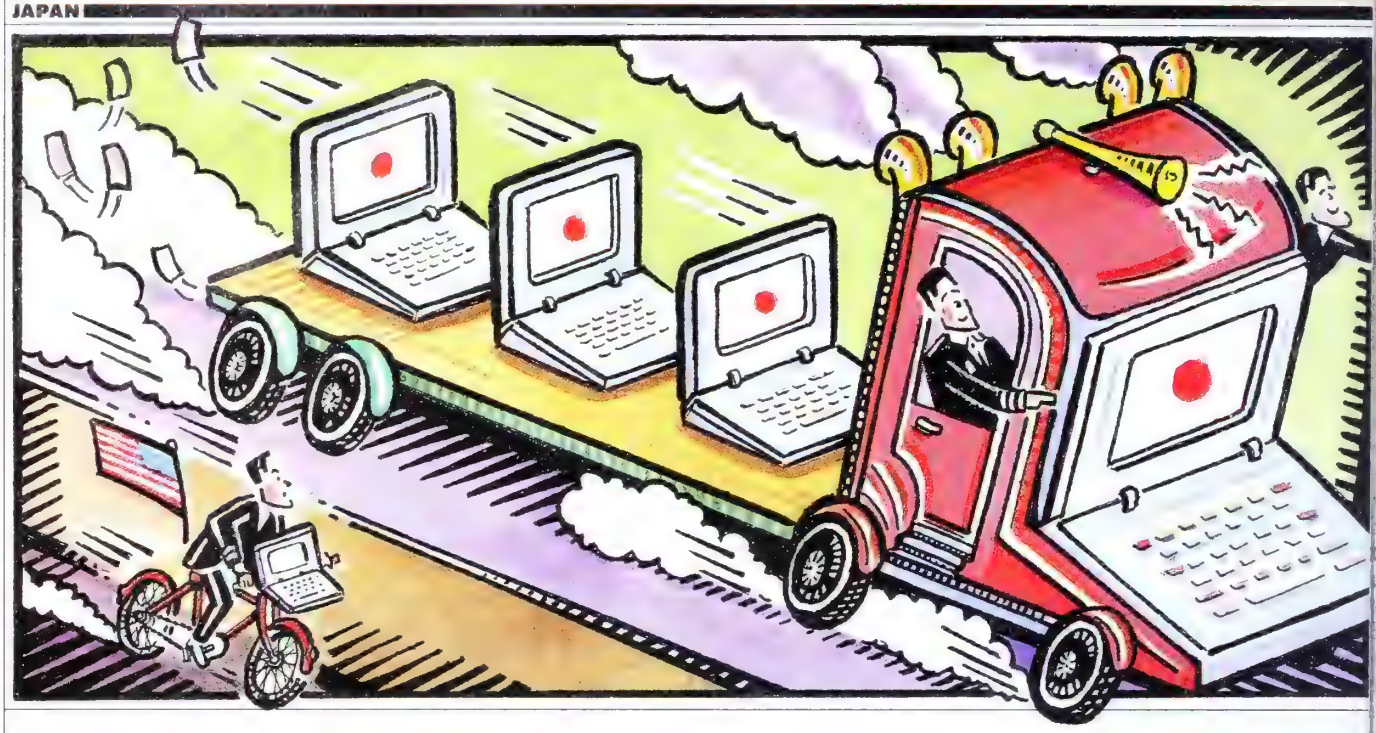

WHERE ARE COMPUTER MAKERS THRIVING? HINT: IT STARTS WITH A 'J'

While the bogey of recession has U.S. giants spooked, Japan's Big Five are pouring it on

From giant IBM to troubled Wang Laboratories Inc., U. S. computer makers are feeling the pinch of a recession. Things are also rough in the European computer industry, where plummeting profits have forced thousands of layoffs. The only ones smiling these gloomy days are Japan's high-tech heavies. They're raking in yen from brisk computer sales at home, where they dominate the growing market.

With record sales and earnings, Japan's Big Five computer manufacturers are advancing their drive to take the global lead in the next generation of computers. The hard times in the U. S. and Europe could give the Japanese a big edge. As producers of everything from microchips to mainframes, these diversified giants, buffered by a strong home market, may prove better able to weather the industry's slump than their American and European counterparts.

In contrast to the U. S., where there are already signs of spending cuts, the Japanese are pouring even more money into research and development. Japan's top 10 high-tech spenders will plow some $15 billion into R&D this year, up 10% from last year. Hitachi Ltd. alone will pump up spending by 11%, to $3 billion. In the U. S., flat sales and profits are putting a hold on R&D. Digital Equipment Corp. and Hewlett-Packard Co., for example, are keeping a lid on spending, while such harder-hit companies as Unisys Corp. and Data General Corp. are cutting back.

Depressed stock prices and layoffs have created opportunities for the Japanese. With steady cash flow and a soaring yen, the Japanese are better placed than their foreign rivals to strike. Indeed, after the last U. S. recession in 1982, Fujitsu, NEC, and Hitachi emerged with the lead in semiconductors.

BRISK ORDERS. While global markets soften, computer purchases continue to grow rapidly in Japan. That lifted profits in the first half (table), and projections for the second half are nearly as bullish. The strong showing at NEC Corp., Japan's second-largest computer company, comes in part from brisk orders by NTT Corp., the $46 billion telephone Goliath. Japan Air Lines Co. plans to spend $270 million to upgrade its reservations system. Even the weakened financial sector, reeling from the sharp drop in the Tokyo stock market, accounted for a healthy 21% of mainframe purchases this year.

Each company has carved out its own niche. Toshiba Corp. is riding a boom in laptops. NEC has 50% of Japan's personal computer market, and Fujitsu and Hitachi are selling mainframes to banks and retailers, which are bucking an overall trend to lower capital spending.

The strong domestic demand gives Japan's computer leaders the resources to engineer systems that are ever more

THE GOOD TIMES IN HIGH TECH

	First-half net profits* Millions of dollars	Percent increase from a year ago
MITSUBISHI ELECTRIC	$265	37%
TOSHIBA	492	31
NEC	297	30
HITACHI	464	9
FUJITSU	226	3

*Period ended Sept. 30, 1990 DATA: COMPANY REPORTS

owerful. Shortly before IBM announced long-awaited new mainframe last sum-ner, Fujitsu, Hitachi, and NEC upstaged he American company by unveiling ven faster computers. The three compa-ies also sell supercomputers they claim an match—or surpass—Cray Research nc.'s fastest machines for certain calcu-ations. Now, the Japanese are pumping efty investments into cutting-edge roducts such as featherweight laptops vith color screens and even faster upercomputers.

America's big computer companies, in-luding IBM, DEC, Motorola, and Texas nstruments, are getting some boost rom Japan's growing market. But de-ades of buy-local policies continue to npede sales. NTT's procurements of for-ign equipment remain well under 5% of otal purchases. And Americans have ever garnered more than 10% of the uge government computer market.

ROWING ALARM. The Japanese have had tough time selling large computer sys-ems under their own brands overseas. ut that could change. By plunking own $1.5 billion for 80% of Britain's agship computer company, Internation-l Computers Ltd., Fujitsu surpassed EC to become the second-largest vendor n Britain after IBM. Alarmed, computer xecutives on the Continent are barring JL from some pan-European research rojects. But Europe's reliance on Japa-ese components may make such actions eaningless. "Even if, hypothetically, omething like Fortress Europe merged, people would soon see the eed to reopen the gate," says Fujitsu hairman Takuma Yamamoto.

The Japanese may face greater pres-ures in the U. S., where alarm is mount-ng over foreign ownership of high-tech ompanies. Even so, resumés are circu-ating from thousands of engineers laid ff by DEC, Unisys, Wang, and Data eneral. That can only help the Japa-ese, whose expansion depends on find-ng skilled technical personnel in the . S. Sony Corp.'s computer subsidiary opes to add 20 new workstation dis-ributors across America this year. And ujitsu is planning a 200-person R&D cen-er in the U. S. to develop a next-genera-on version of Unix software, which ould make Japanese hardware more ompetitive.

As U. S. companies cut back, they run he risk of becoming more dependent on okyo's chips and knowhow. "How do ou make a better computer than Hita-hi and market it sooner if you are de-endent on Hitachi for computer chips?" sks Stephen Cohen, director of the erkeley Roundtable on the Internation-l Economy. "The answer is: No way." hat's a lesson American companies had etter store in their memory banks.

By Neil Gross in Tokyo

BRITAIN

RUPERT MURDOCH'S RENDEZVOUS IN SPACE

The British Sky merger will ease his staggering debt load

MURDOCH: SATELLITE TV MAY FINALLY GET OFF THE GROUND—WITH VIEWERS AND ADVERTISERS

The race to beam TV programs from the heavens to British viewers didn't even look close. Rupert Murdoch's Sky Television had a one-year jump on rival British Satellite Broadcasting Ltd. It has sold more than 1 million satellite dishes—nearly 10 times as many as BSB. The wily Australian media tycoon was predicting that Sky would make money by 1992, while BSB was losing $14 million a week.

So why did Murdoch suddenly forge a peace pact with BSB on Nov. 3, agreeing to merge the bitter rivals in a 50-50 joint venture? It appears that Sky was a sacrificial offering to Murdoch's bankers. After years of buying companies with other people's money, Murdoch's News Corp. has racked up debt of $8 billion. But suddenly, cash flow wasn't matching this year's interest bill. Worried bankers were pressing Murdoch to take action before they would renegotiate $2.25 billion in short-term loans, due before yearend. As the biggest cash drain in the empire, losing more than $5 million a week, Sky was the logical target.

Investors are breathing easier: News shares, which had sunk 70% from their 1990 high on the Australian exchange, surged 38%, to $4.75. By shifting Sky's losses to the venture, a News Corp. official says the deal should add $200 million to cash flow this year. Even Murdoch's tight-lipped lenders are smiling. "This joint venture has to be good for all parties," says Robert J. Keen, head of media lending at Midland Bank PLC. "News Corp. continues to warrant support."

Murdoch, too, must be sighing in relief. He got the bankers off his back for the moment. He also emerges with a stronger TV venture. From the start, the two incompatible systems had been sapping life from each other. Unsure which would triumph, many consumers hesitated to plunk down the $650 or more to buy a dish and decoder. The two were spending millions in bidding wars for film libraries and sports events. "We were losing too much money fighting," says Peter J. Davis, chairman of Reed International PLC, one major BSB partner. "Now we have a real chance to make satellite TV work."

BEAMING BART. Still, Sky comes out on top. The venture, to be called British Sky Broadcasting, will use Sky's technology, scrapping BSB's two costly satellites. Top management will be split 50-50, but most employees will come from Sky. What's more, Murdoch's global strategy—to share programming among his far-flung ventures—remains intact. Already, the hit show *The Simpsons* from his U. S. Fox network is the No. 2 program on Sky, after American wrestling.

The venture will start by beaming five channels, including two all-film channels and one each devoted to sports, news, and entertainment. The formula is sure to appeal to TV-crazy Britons, who own

ROBIN LAWRANCE

the world's largest concentration of VCRs. Once-wary advertisers now appear eager to spend money with the new venture. "This merger removes any doubts about the long-term viability of satellite TV," says Steve D. King, broadcast director at Zenith Media Buying Ltd., Britain's top media buyer.

If Sky had been able to outlast BSB, all these riches could have been Murdoch's alone. But the four big BSB partners, including publishers Reed and Pearson, French conglomerate Chargeurs, and British entertainment group Granada, played a shrewd hand. The BSB partners refused to cave in to Murdoch's demands for an upfront cash payment of as much as $800 million for bailing them out. They also persuaded Murdoch to let the venture shoulder many of BSB's hefty liabilities, including the now-redundant satellites. In return, Murdoch will get the lion's share of the dividend payout when the venture turns profitable, which could be in 1993.

For Murdoch, half the sky isn't so bad. Four years ago, he was almost shut out of Britain's satellite TV race entirely. Afraid of media concentration, the government ruled Murdoch out of the original bidding for frequencies because he owns several British newspapers. Undaunted, the mogul rented space on a Luxembourg-launched system not subject to British regulation and beat BSB to the punch. The Sky/BSB merger is under review but not likely to be grounded. Even when Murdoch loses, he wins.

By Mark Maremont in London

SWEDEN

A '91 VOLVO 460: EVENTUALLY, THE TWO COMPANIES MAY BUILD CARS WITH SIMILAR INSIDES

MITSUBISHI IS TAKING A BACK ROAD INTO EUROPE

A plan to build cars in Holland with Volvo is a wedge for the Japanese

In a former Illinois cornfield halfway between Chicago and St. Louis, a spanking-new auto plant assembles more than 200,000 sport coupes a year under the twin banners of Mitsubishi Motors Corp. and Chrysler Corp. Now, Mitsubishi and Sweden's Volvo are planning to launch a similar relationship in an existing complex 70 miles south of Amsterdam. If it goes through as planned by early January, the deal will mark the first large-scale Japanese joint auto venture on European soil.

The planned enterprise could forever change the way the European Community deals with Japanese competition. French and Italian auto makers, fearful that Japan will send them the way of America's Big Three, are close to winning a quota agreement that would limit further penetration by Japanese imports. But it's harder to limit joint ventures, which could become "another wedge for the Japanese," says N. Victor Dial, marketing vice-president for France's Peugeot.

Honda already owns 20% of Britain's Rover, Nissan and Toyota are expanding in Europe on their own, and Mitsubishi is discussing separate joint ventures with Germany's Daimler-Benz. Finally, in what may signal a break in France's resistance to the Japanese, Renault could even choose to join Volvo's Dutch project. Renault recently agreed with Volvo to buy 25% of each others' car operations, and Chairman Raymond H. Levy has been in constant contact with his counterpart at Volvo, Pehr G. Gyllenhammar, over the Mitsubishi plan. "We are perfectly open to all cooperation agreements," says a Renault official.

CLEANER ENGINES. Insiders say Mitsubishi might buy 30% of Volvo's Dutch affiliate, which makes midsize cars for the European market. The Dutch government now owns 70% of the plant, but it will cut its ownership to 10%, while Volvo will raise its stake to 60%. Right off the bat, the Japanese and Swedish partners plan to substitute clean-burning Mitsubishi engines for older ones supplied by Renault. By the mid-1990s, Mitsubishi expects to be producing 70,000 Mirage autos annually alongside the 130,000 Volvos the plant now manufactures. Eventually, the two manufacturers plan to make vehicles with different bodies but similar insides. All told, Mitsubishi may spend $1.5 billion.

Volvo needs a boost from Mitsubishi. In the first half, Volvo's operating profits dropped by 60%, to $250 million. Its Dutch affiliate may register a small loss this year after earning only $32.4 million in 1989. But news of a Volvo-Mitsubishi alliance hasn't sat well with Peugeot Chairman Jacques Calvet. He complained to Renault's Levy that "he doesn't want to see another Trojan horse," says Dial of Peugeot. By now, it may be too late for Calvet to do anything but gripe.

By Jonathan Kapstein in Brussels, with Stewart Toy in Paris and bureau reports

MITSUBISHI MOTORS' GLOBAL VENTURES

EUROPE

▶ May make cars jointly with Volvo at Dutch plant ▶ Discussing joint ventures with Germany's Daimler-Benz

NORTH AMERICA

▶ Owns 10.2% of Chrysler ▶ Makes autos with Chrysler at jointly owned plant in Bloomington, Ill.

ASIA

▶ Owns 15% of South Korea's Hyundai Motors ▶ Has stakes in other auto and parts makers in the Philippines, Malaysia, Thailand, Indonesia, Taiwan

DATA: BW

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Barry F. Sullivan, Chairman, First Chicago Corporation

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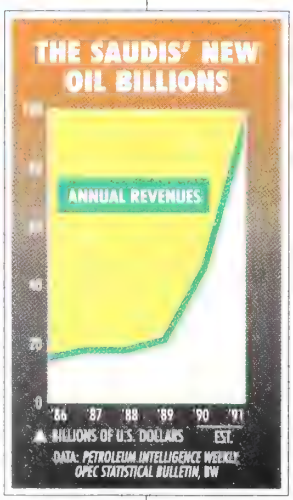
SAUDI ARABIA

A KINGDOM TESTED FROM WITHOUT—AND WITHIN

The House of Saud's soul-searching is leading to slow but sure change

In the exclusive al-Nassiriya section of Riyadh, hard by the heavily guarded palace of King Fahd of Saudi Arabia, stands a huge glass-paneled building. Built 10 years ago to house a *majlis al shura*—or Consultative Council—that was to be the first, timid step toward democratizing the kingdom, the impressive structure never opened its doors. It still stands empty, gathering desert dust.

Now, the pressure is on the Saudis from without and within to open up not only those doors but also their whole kingdom. Saddam Hussein's invasion of Kuwait on Aug. 2 and the subsequent landing of close to 200,000 U. S. and several thousand Arab troops have jolted Saudis, from the upper reaches of the 4,000-member al-Saud royal family to investment bankers and government officials, into soul-searching about their future.



President Bush's visit on Thanksgiving will underscore the pressure on the staunchly conservative Saudis. The U. S. now has tremendous expectations of Riyadh—and not just in how it conducts its internal affairs. The al-Saud family is being asked to pump up oil production to hold down prices. Washington also sees the desert kingdom as the regional linchpin of a new, pro-Western Persian Gulf security system that will permanently alter the balance of power in the Middle East.

So far, Riyadh has been more than willing. Along with boosting oil output, King Fahd will cough up $5 billion this year to defray the costs of maintaining foreign troops on his soil. He also has put in a $7.3 billion order for armaments and is likely to come back for twice that next year. Furthermore, American contractors are winning the plum jobs in what may be a $30 billion program to expand oil output.

The nation could have a lot more bucks to spend on these services. At today's production levels of more than 8 million barrels a day at over $30 a barrel, Saudi Arabia could generate as much as $95 billion in oil revenues next year. That would be double 1990's estimated haul of $46 billion. But the kingdom's current account will be $4 billion in deficit this year because of increased military spending and payments to regional allies such as Egypt and Syria, according to Vahan Zanoyan of Washington-based Petroleum Finance Co. Next year, though, if oil prices hold up, there should be a surplus of $20 billion to $30 billion for overseas investment.

But both the U. S. and the al-Sauds are engaged in a daring gamble. With such tough neighbors as Iran and Syria, the Saudis won't help matters by looking like U. S. puppets. The need to call for American help despite more than $150 billion in military expenditures in recent years already has raised doubts about the al-Saud's stewardship. Excessive dependence on the U. S. could provoke a backlash from the increasingly influential fundamentalists or other elements of what may be the world's most conservative populace. After the crisis passes, "the Saudis will have to keep a little distance from the U. S., " says William B. Quandt, a Middle East specialist at the Brookings Institution in Washington. "They can't rely on just the U. S. military."

HOT TAPES. The Moslem fundamentalists are deeply troubled by the huge numbers of non-Moslem troops so close to the holy places of Mecca and Medina. Just a few days after the first contingent of the 82nd Airborne landed at King Abdulaziz Airbase in Dhahran, cassette tapes of radical Saudi preachers began circulating, first in the religious centers of western Saudi Arabia, then throughout the kingdom. "It's strong, antiroyal-family stuff," says one Saudi businessman, who has listened to a few of these diatribes. Throughout the gulf, cassettes have become a preferred method for spreading radical religious ideas.

But there also is ferment at the heart of the Establishment. Three days after the invasion of Kuwait, for example, the top Saudi executives of Jeddah-based

FAHD: SLOW TO MAKE DECISIONS

WHO RULES THE HOUSE OF SAUD

KING FAHD BIN ABDULAZIZ, 69
■ Head of state and Prime Minister. Was a liberal and shrewd prince, but considered timid and insular as King. Plagued by poor health.

ABDULLAH BIN ABDULAZIZ, 67
■ Heir apparent. First Deputy Prime Minister, commands the Bedouin National Guard, emissary to Arab leaders, troubleshooter for conflicts. Cooler to U.S. than Fahd.

SULTAN BIN ABDULAZIZ, 66
■ Powerful Defense Minister, King's full brother and one of his closest advisers. Modern but tainted by weapons procurement scandals. Son Bandar is ambassador to the U.S.

SALMAN BIN ABDULAZIZ, 64
■ Riyadh's governor, made the capital a showcase modern city, very popular; Fahd, full brother, uses him as peacemaker in family feuds.

SAUD AL-FAISAL, 50
■ Foreign Minister. Princeton-educated son of late King Faisal; leader of his generation of princes.

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Ninety Eight

The New Generation of Oldsmobile

audi Cable Co. assembled to talk about ıe effect of Iraq's action on the 985- ember work force. "The meeting soon ırned into a marathon session about hat kind of future we wanted for Saudi rabia, about the role of the royal fam- , elections," recalls one young execu- ve. "None of us had ever talked politics ith each other before."

Even within the almost unimaginably ealthy royal family, there is a growing nse of a need to adapt the Saudi sys- m to the increasing complexities of Ri- dh's new role. "With all due respect, e King can't do everything," says rince Abdulaziz bin Salman, one of ing Fahd's nephews and a top adviser the Oil Ministry. "He's con- onted with so many issues ow that he has to tackle one." Abdulaziz thinks his ıcle should appoint a council wise men that would rec- nmend legislation.

.IMSY CABINET. Many in ashington believe the best ay to guarantee Saudi sta- lity is to encourage a politi- l liberalization that whittles vay at corruption. Some embers of the new genera- on of Western-educated Sau- s agree. But the al-Saud stem of cultivating loyalty rough generous handouts ıs served the family well for er 60 years. It will be hard graft democracy onto a de- rt kingdom. "People have to arn how to become demo- atic," says Prince Abdulaziz.

Virtually all important decisions are ade by King Fahd bin Abdulaziz, the ling, 69-year-old monarch and head of e family. His brothers and nephews cupy all the key posts in the land as inisters of Defense, Interior, Informa- on, Foreign Affairs, and commander of e tribal National Guard.

Trusted commoners, such as Muham- ad Abalkhail, the longtime Finance inister, watch over other portfolios. ut when commoners lose favor, as did il Minister Ahmed Zaki Yamani in 1986, ey are summarily dismissed. Cabinet eetings are held to approve royal de- ees, not debate them.

The al-Sauds have more in common ith a vast tribe than with, say, a royal mily on the lines of Britain's House of indsor. King Abdulaziz, father of the ıst three Saudi kings and unifier of rabia in the early part of this century, red 45 sons by at least 22 mothers. ey positions of the state are held by inces, and the royal family also con- ols whole stretches of Saudi economic e through front companies and influ- ence on lucrative government contracts.

Many Saudis say they are growing weary of such practices. For example, Riyadh brothers Abdulaziz and Khalid al-Ibrahim emerged from relative obscurity just a few years ago to become billionaires largely because their sister, Muna, is the King's favorite wife. "Corruption is destabilizing the whole system," says a U. S.-educated Saudi entrepreneur.

Fahd has been something of a disappointment to many Saudis. Critics charge that the cautious King was glacially slow in making decisions—until Saddam Hussein struck. When he took the throne in 1982, Fahd was full of big plans, such as launching the Consultative Council. But sources close to the King say that the outbreak of the Iran-Iraq war, the threat of fundamentalist Iran, and pressure from some of his more autocratic brothers frightened him into inaction.

AT PLAY IN DHARAN: THE PATERNALISTIC SAUDI STYLE HAS WORKED WELL FOR DECADES

FREE SPEECH. But just as the Saudi system has its weaknesses, it so far has proven adaptive and resilient without having to resort to the brutality of some of its neighbors. Saudi princes take the public pulse through frequent meetings with constituents. "The contact with the people is greater here than anywhere else in the Middle East," asserts Muhammad Jameel, a leading Jeddah businessman. Influential figures such as Jameel and other top businessmen are free to criticize—and often do so.

> 'The contact with the people is greater here than anywhere else in the Middle East'

Such sessions had an impact on the Saudi press. For four days following the Iraqi invasion of Kuwait, the tightly controlled and censored Saudi media carried no news of the event and referred to U. S. troops only as "friendly forces." Several top Jeddah businessmen went to Prince Sultan bin Abdulaziz and complained. Over the past few weeks, the Saudi press has become more outspoken than ever. "He got the message," says one of the businessmen.

Still, any movement toward liberalization will probably have to wait until the crisis in the Persian Gulf is resolved. A major constraint is fear that any opening of the political system would let some nasty genies out of the bottle: Islamic fundamentalists, Iraqi-style Baathists, and anti-Western, anticapitalist groups. That's why Prince Abdulaziz says that holding elections anytime soon would be foolish: "If we go for elections now in Saudi Arabia, you would get a Parliament of fundamentalist clergy and Bedouin groups."

Potential homegrown tensions also account for top Saudi leaders recently telling Washington that permanent U. S. bases on Saudi territory are "out of the question," as a Defense Ministry adviser in Riyadh put it. However, agreements in principle already have been reached that will allow U. S. and other multinational forces to set up permanent bases in Bahrain—only 10 miles from the Saudi coast—and in a liberated Kuwait. When Bush visits, the Saudis will tell him that they are prepared for a closer embrace, but not one that rocks the House of Saud.

By John Rossant in Riyadh, with Stanley Reed in New York

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EDITED BY JOHN PEARSON

IS THE U.S. BEING WRITTEN OUT OF EUROPE'S SCRIPT?

In the year since the Berlin Wall fell, the Administration has been anxiously looking for ways to maintain U.S. influence in Europe, mainly by finding new missions for NATO. But as President Bush prepares to join European and Soviet leaders in Paris on Nov. 19 to write an end to the cold war, the U.S. position in Europe still lacks a firm anchor.

At the summit of the 34-nation Conference on Security and Cooperation in Europe, leaders will sign disarmament accords to remove tens of thousands of tanks, aircraft, and artillery pieces from Europe. They will also sign a nonaggression treaty between NATO and the Warsaw Pact, which is rapidly becoming a hollow shell. And the summit will give the CSCE, once an amorphous forum for discussing human rights, a new political and institutional mandate for post-cold-war Europe.

BIG RISK. By contrast, allies such as Germany and France aren't supporting a continued U.S. role in Europe as strongly as Washington had expected. "The Europeans are trying to build their own identity," says Helmut Sonnenfeldt, a former State Dept. official. "But if the process isn't done carefully, it could lead to the U.S. not being a power in Europe."

PICNICKERS AT AN IRON CURTAIN CHECKPOINT: NATO IS RAPIDLY BECOMING OBSOLETE

In return for firm U.S. backing for Germany's unification, Washington had expected Bonn to continue its efforts, ongoing since the 1970s, to lower European Community barriers to trade with the rest of the world. But in the current negotiations under the General Agreement on Tariffs & Trade, Germany so far has been leading the opposition to Washington's demand for cuts in EC subsidies to European farmers. German Foreign Minister Hans-Dietrich Genscher insists that a solution will be worked out to break the GATT impasse, saying "it is an absolute priority in our policies." But there is a big risk that a deterioration in U.S.-EC trade relations could overshadow American efforts to forge formal links with the EC—something Bush wants to wrap up before his European trip.

NATO, Washington's primary link to Europe, is faring little better. Allies still want NATO as insurance against instability in the Soviet Union and Eastern Europe. But NATO's identity crisis will be deepened by the removal of 360,000 Soviet troops from what was East Germany during the next three years. "It's going to be tougher and tougher to explain why Europe needs an alliance whose virtue seems to be guarding against the reversal of current trends," admits a State Dept. official.

RISING STAKES. In the Persian Gulf crisis, NATO has served as a useful coordinator for allied action against Iraq and as a base for projecting U.S. power. But France, which is not a member of the alliance's military structure, is pushing the EC as Europe's primary political forum and as the successor to NATO's military role. Instead of bolstering NATO, Paris sought to scuttle NATO discussions of German unification and the Lithuania crisis.

By contrast, the CSCE is proving to be less competition for NATO than Washington had feared a year ago, when Moscow and Bonn were calling for it to displace NATO as a guarantor of security in Europe. The Paris summit is expected to limit the CSCE to a small secretariat, which is likely to be based in Prague, with annual meetings of European foreign ministers to oversee its activities. Centers for promoting elections and monitoring regional conflicts will be dispersed, possibly to Warsaw and Vienna, respectively. Such an organization, by itself, won't greatly diminish U.S. influence on the Continent. But Washington still hasn't shaped a role for itself in the new Europe's future, although the economic and political stakes will continue to grow.

By Bill Javetski in Washington, with John Templeman in Bonn

GLOBAL WRAPUP

BRITAIN

Prime Minister Margaret Thatcher is fighting the toughest political battle of her career on two fronts—against the resurgent Labor Party and against mounting criticism within her Conservative Party. Following Deputy Prime Minister Sir Geoffrey Howe's Nov. 1 resignation in protest against Thatcher's effort to brake European integration, the odds are growing that she may not finish her third term. Even if she isn't challenged during November's routine reelection of party officers, the sickly economy and deep splits among Tories over Europe may stir pressures on her to resign.

Howe's departure leaves Thatcher the sole survivor from her original 1979 Cabinet. The younger politicians now surrounding her are more centrist politically and eager to move ahead on European economic and monetary union. Among them, Foreign Secretary Douglas Hurd, a possible successor, and Chancellor of the Exchequer John Major "are quite significant power brokers now," says former House of Commons leader John Biffen. They want Thatcher to tone down her anti-European rhetoric. But she is so ardently opposed to a European central bank and single currency that she is considering asking the House of Commons to hold a referendum on these issues.

Ironically, polls show that voters are more in tune with Thatcher's reticence on Europe than with her critics' pro-European stance. But they are disturbed by Tory disunity over these issues—which has helped Labor hold a healthy lead of 14% to 21%.

Worse for Thatcher, the European debate has flared just as the sagging economy has pulled business confidence down to its lowest level in a decade. It takes nine months for an improved economic outlook to benefit the party in power, according to Gallup Poll Ltd. As a result, Tory politicians are starting to calculate whether to turn to a new leader for the next election, which must be held by July, 1992.

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STRATEGIES

NUCOR: ROLLING RIGHT INTO STEEL'S BIG TIME

It took a gamble on a new technology—and the payoff looks huge

The year was 1984, and F. Kenneth Iverson sat in a bar near Philadelphia's airport sketching out a rough blueprint for a new steel plant that would rely on an unproven technology. Nucor Corp.'s chief executive figured the technology, called thin-slab casting, would allow his tiny steel company to crack the lucrative market for flat-rolled steel, long the exclusive province of the industry giants. Nucor plant manager Keith E. Busse, who was with Iverson, recalls thinking: "If this fails, it may not sink the ship, but it's sure a gigantic risk."

Oh no, you say. Not another cocktail-napkin-to-riches story. True, Iverson isn't the first CEO to dash off a brilliant new strategy on a piece of paper. But his doodling has riveted the attention of the nation's mightiest steelmakers, who now face an increasingly fiesty competitor in his $1.5 billion company. Nucor opened its $275 million thin-slab casting plant, the nation's first, last year in Crawfordsville, Ind. And in June, the plant turned its first monthly profit—six months ahead of schedule. Emboldened, Iverson, 65, announced plans last month to build a second thin-slab plant for $300 million in Arkansas. And he's already thinking about a third.

During the late 1970s, Nucor, based in Charlotte, N. C., won renown as a gutsy, low-cost minimill. Minimills use electric furnaces to turn scrap into steel, rather than starting from scratch with iron ore and coal, as the big integrated producers do. But with 20% annual revenue growth that should take the company over the $2 billion mark by 1992, there's nothing particularly mini about Nucor these days. The company is proving that with the right technology and creative labor incentives, it can compete with anyone.

IVERSON HAS NUCOR'S LARGER RIVALS WORRIED

In fact, as the steel industry now confronts a painful consolidation, Nucor is poised to grow. "Nucor is the model for steel companies of the future," says John E. Jacobson, a steel analyst at AUS Consultants Inc.

Nucor has been something of a trailblazer ever since Iverson, a metallurgist, took over as president in 1965. During the early 1970s, Nucor launched its mini mills, then a novelty, and built up quite a business serving the low-margin end of the steel market with structural steel products such as I-beams and decking.

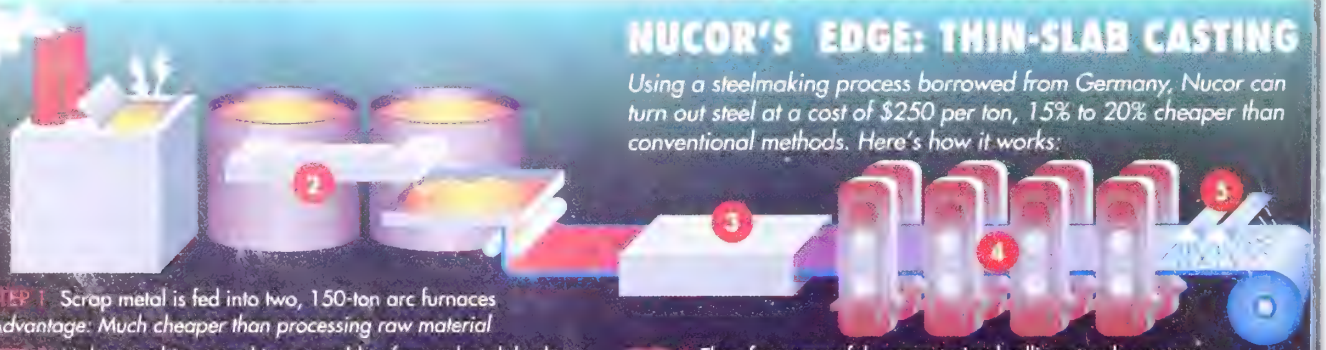
BIG EDGE. By the mid-1980s, however, that low end of the market became glutted, as rivals sought to imitate Nucor's success. So Iverson decided to take Nucor uptown. He's now aiming for a greater piece of the $20 billion flat-rolled steel market, which includes higher-margin products such as auto parts and steel pipes. Nucor couldn't afford to build a traditional flat-rolled plant, which typically boasts up to 4 million tons of capacity and costs $2,000 per ton to build. So Iverson turned to a German steel-equipment maker, SMS Schloemann-Siemag, which had developed the thin-slab process. The result: Nucor built its 800,000-ton mill in an Indiana cornfield for only $300 a ton.

The technology gives Nucor production edges that are equally impressive. In conventional plants, molten metal is poured into a caster that molds slabs about 10 inches thick. The slabs are then reheated and laboriously run through as many as 10 so-called rolling stands until the steel is flattened out to a thickness of $\frac{1}{10}$ of an inch.

Unlike the integrated steelmakers' plants, which are set up for larger production runs and often reheat the steel at separate sites, Nucor's steelmaking technique is a single, continuous pro-

NUCOR'S EDGE: THIN-SLAB CASTING

Using a steelmaking process borrowed from Germany, Nucor can turn out steel at a cost of $250 per ton, 15% to 20% cheaper than conventional methods. Here's how it works:



STEP 1 Scrap metal is fed into two, 150-ton arc furnaces *Advantage: Much cheaper than processing raw material*

STEP 2 Molten steel is poured into a mold to form a hot slab about 2 inches thick and 53 inches wide. *Advantage: Nucor's thin slab can be rolled to its final thickness of one-tenth of an inch about four times as quickly as traditional 10-inch slabs*

STEP 3 A furnace keeps the steel slab hot for further flattening

STEP 4 Then four powerful, computerized rolling stands squeeze slab thickness down to one-tenth of an inch. *Advantage: A conventional mill uses about 10 rolling stands and must reheat slabs, boosting energy costs 20% to 40% over Nucor's method*

STEP 5 The steel is then cooled, chemically treated, and finish-rolled

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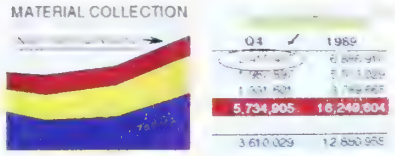

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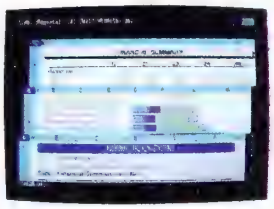

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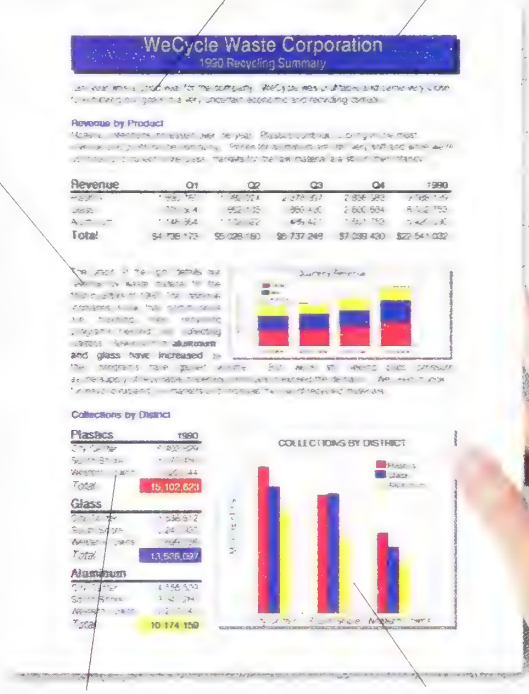

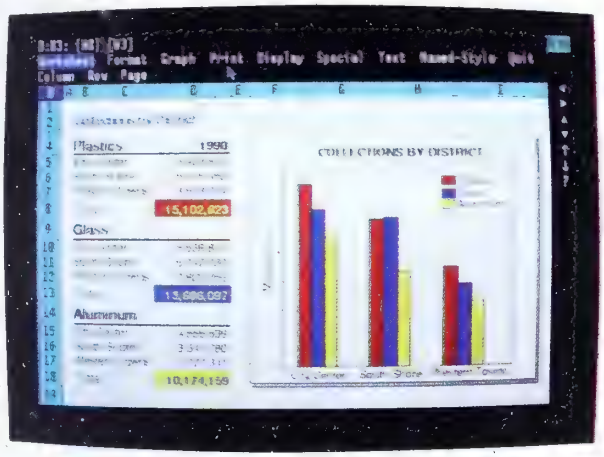

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And see why 7 out of 10 spreadsheet buyers chose 1-2-3. And the other 3 may not be far behind.

Introducing Lotus 1-2-3 **3.1**

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Not everyone is enamored of Nucor's in-slab technology. Some contend that e process produces steel with too any imperfections to be used to cover ıtomobiles and appliances. And because Nucor's production line is continuous, a breakdown in one process shuts down the entire operation—a problem Iverson says he has already factored into his production schedules.

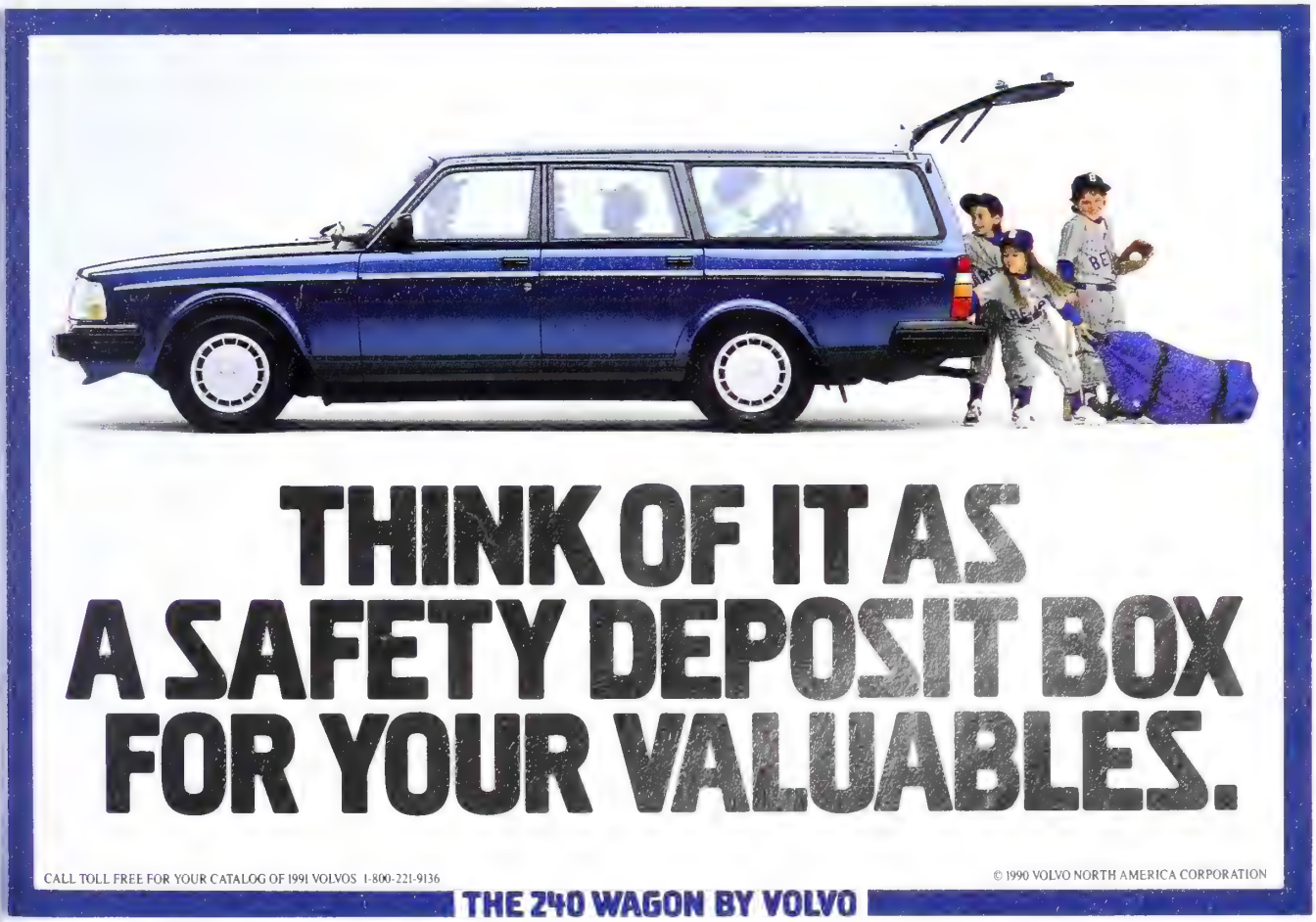
The criticism of the quality of the steel produced by Nucor's process has been harder to deal with. Because Iverson scrimped to save money on a key molten-steel container, called a "tundish," the process failed to remove enough impurities. At first, it produced steel with an average of 150 surface imperfections per roll. "Eight months ago the quality was just plain bad," Busse admits.

No more: Nucor has found ways to reduce imperfections to no more than 15 per roll. It continues to tinker with the process and is also retrofitting the tundish—moves that it hopes will eliminate all surface problems. Fixing things hasn't been cheap. Nucor's total three-year startup costs will run about $60 million, double original projections, and the plant isn't expected to turn a profit on an annual basis until 1991. But customers notice the difference. Although the surface isn't good enough yet for exterior car parts, Nucor's flat-rolled has been employed for a speaker housing in Ford Motor Co.'s cars, among other uses.

Despite the headaches, engineers and rivals concede that Nucor is probably onto something big. "This technology will pose a threat in the future," says one executive at National Steel Corp.

CHALLENGE. That future may be closer than rivals think. Nucor plans to expand its share of the flat-rolled market. The steel turned out at its Crawfordsville plant is up to 53 inches wide, a size that accounts for two-thirds of the 55 million-ton yearly U. S. market. Nucor's Arkansas plant, set to open in 1993, will produce steel up to 61 inches wide, which would expand the company's reach to 85% of the market.

In the long run, the minimills may pose a real challenge to the integrated steelmakers such as USX, LTV, and Inland. As minimills build up more capacity, they could take 25% of the flat-rolled market by the end of the decade, says



Some engineering challenges are real monsters

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Getting this fire-breathing, fully-movable, car-crushing monster operational called for the contributions of eight Parker divisions.

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A partnership in vital technologies

Parker

(PH-NYSE)

J. Pasquarelli, chief executive of New rsey Steel Corp., a minimill. Already, ıcor can't turn out the stuff fast ough. It has sold all the thin-slab el, which is priced 5% or so cheaper an similar steel sold by the rival steel- ıkers, that it can produce through mid- nuary. One reason: ıe uniform flatness Nucor's sheet steel ıtches the quality other mills and alifies for uses ıere minor surface emishes aren't a oblem.

Other minimills ven't been as fortu- te as Nucor. Bir- ngham Steel Corp. d New Jersey Steel ve postponed plans r their own thin- ıb plants. Iverson gures that gives him at least a three- ar head start. In the meantime, ana- sts say another round of steel consoli- tions, particularly among smaller oducers, is inevitable. "There's going be a bloodbath," says Charles A. adford of UBS Securities Inc.

There are few perks at Nucor: Iverson often entertains visiting executives at nearby Phil's Deli

Nucor isn't likely to be bloodied. Its smart approach to labor costs should help insulate it in a downturn. Compensation is pegged to production and profitability. Base wages of about $8 an hour contribute less than half a typical workers' paycheck during good times. The rest comes from assorted bonuses. So, Nucor's labor costs decline substantially when demand falls.

While Nucor has a no-layoff policy for its 5,500 nonunion employees, it does have the flexibility to cut to a three- or four-day work week if demand falls off significantly. In addition, Nucor doesn't pay pensions, opting instead to give retirees a profit-sharing payout of up to $150,000. These policies drive down Nucor's labor costs to $60 a ton—about half the labor costs of big steel.

Management operates under similar incentives. Iverson and others take home less when profits are down. And there are no perks such as company cars, aircraft, or executive dining rooms. When fellow executives from other companies come calling, Iverson often treats them to lunch across the street at Phil's Deli.

A FIREBRAND. Such a no-frills approach helps to explain why Nucor has never had a losing quarter during Iverson's 25-year tenure. But the steelmaker is by no means immune to the ups and downs of the steel business. With the prospect of an industrial downturn in 1991, Nucor is expecting profits of $85 million to $95 million next year. That's a healthy jump from this year's expected $75 million, but it is still well below Wall Street's projections.

Even so, given Iverson's track record, Nucor is likely to remain a firebrand in the steel industry. In fact, Iverson is already looking at the most promising of several next-generation steel technologies. It's called "thin-strip" casting, and could cast steel directly into the $\frac{1}{10}$-inch sheet. It's still a decade or so away, and plenty of rivals are looking at it. But Nucor's competitors better hope that Iverson isn't spotted scribbling on another cocktail napkin anytime soon.

By Michael Schroeder and Walecia Konrad in Charlotte, N. C.

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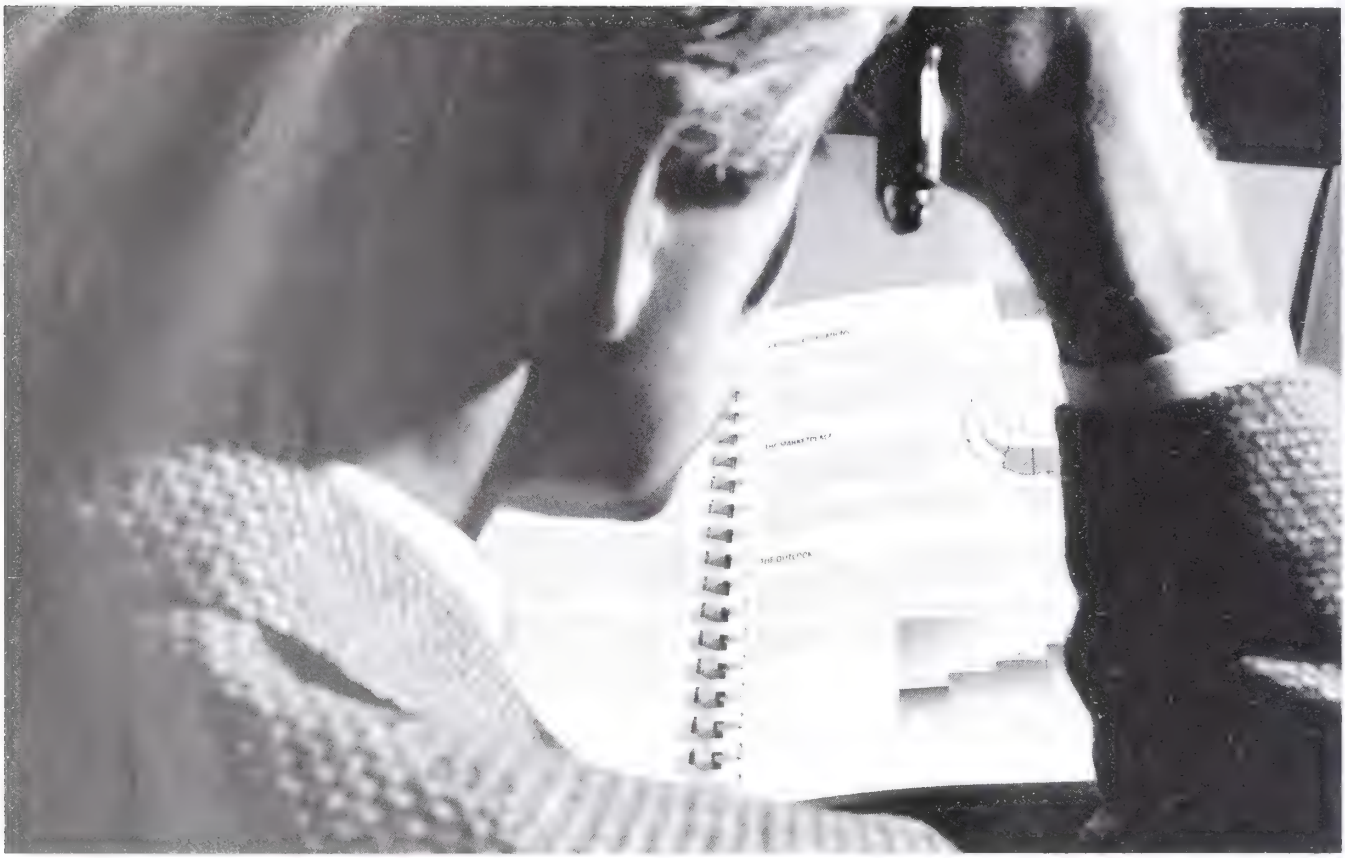

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STRATEGIES

THE NEW MEAT AND POTATOES AT MORRISON

Its slowing cafeteria business has it beefing up restaurants

COME AND GET IT: A MORRISON'S IN MOBILE

Part of growing up in the South during the 1960s and 1970s was grabbing a quick bite at a Morrison's Cafeteria while tooling around the local shopping mall. What it lacked in elegance, Morrison's made up for with a friendly, come-and-get-it atmosphere. And it was tough to beat the prices for such specialties as fried chicken and corn bread. No wonder Morrison's grew into the nation's largest cafeteria chain.

Nowadays, though, Morrison Inc.'s cafeteria business has hit a rough patch. Northerners never really cottoned to cafeterias the way folks did in the South, which is now glutted with them. Worse, the carnage in the retail industry is dampening Morrison's business at shopping malls, home to 85% of its cafeterias. The Mobile (Ala.)-based company has suffered through four consecutive quarters of flagging earnings, while its stock has shed 50% of its market value during the past year.

To revive the company, Morrison Chairman E. Eugene Bishop is pushing for more business on a couple of fronts. He's beefing up promotions, such as discounts, at his cafeterias. At the same time, he is spending heavily to build up Morrison's specialty restaurant group, in which most experts see stronger growth prospects. He has doubled the number of restaurants in the group, emphasizing the fast-growing soup, salad, and burger Ruby Tuesday chain. "Our strategy is to go gangbusters with the specialty division," says Bishop, a restaurant pro who started out as a food server at a Morrison's cafeteria in Savannah, Ga., 43 years ago.

It looks as if it will be a tougher slog at Morrison's cafeteria chain. Bishop has launched a marketing and advertising campaign that offers discount cards to senior citizens, frequent diners, and mall employees, as well as church and business groups. So far, the blitz has boosted customer counts less than 1% this year—and it hasn't been cheap. Depressed in part by the $12 million marketing push, operating earnings from cafeteria sales plunged 23%, to $3.2 million, for the most recent quarter, ended Sept. 1. That, in turn, helped drag down Morrison's total net 20%, to $4.9 million, during the same period, while sales rose 9%, to $227 million.

There's no assurance that Bishop's costly cafeteria strategy will pay off anytime soon. Rivals such as Furr's/Bishop's, Piccadilly, Luby's, and Wyatt are battling it out in what's likely to remain a sluggish market. With baby boomers looking for more in the way of service and quality as they grow older and wealthier, the $3.5 billion cafeteria segment will only grow by 3% this year, figures Chicago market researcher GDR Crest Enterprises Inc. That's why some wonder whether Morrison ought to keep its core business. "Maybe they should just spin off the cafeterias," says Craig Weichmann, an analyst with Memphis-based Morgan Keegan & Co.

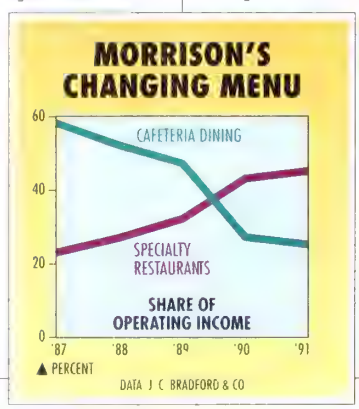
Bishop still thinks his cafeteria chain has a strong future, but he's hedging his bets. GDR Crest says the market for mid-price restaurants, such as Ruby Tuesday and rival Bennigan's or TGI Friday's, grew 13% last year. Morrison is well-positioned: Bishop has doubled the size of the Ruby Tuesday chain, named after an early Rolling Stones hit, to 117 units during the past three years. Morrison's 153-unit specialty restaurant division now represents 28% of company sales and over half the operating profit (chart). What's more, Bishop plans to expand the division another 25% by next June, the end of fiscal 1991.

IMPENDING HEALTH. In recent months though, Bishop's gambit hasn't yielded much in the way of earnings. Morrison shocked Wall Street by reporting a first ever profit drop—albeit only 1%—to $4.7 million, for its specialty restaurants. President Samuel E. Beall III admits the results caught the company by surprise. He blames the poor showing on menu price cuts and the costs associated with rapid expansion during an economic slowdown. He expects profit margins to get better as expansion slows because established units typically earn 13% margins, while new units contribute only 5%.

In the meantime, Morrison has another ace up its sleeve. The company's contract food service division, which serves hospitals, colleges, schools, industrial plants, and offices, is growing by 10% to 15% annually and accounted for 30% of income in fiscal 1990.

Bishop has his fans. True, Chicago-based Ariel Capital Management Inc., Morrison's largest institutional holder, dumped one-seventh of its holdings in August. But portfolio manager Sandy Mehta says Ariel is keeping its remaining 11.7% stake partly because Morrison "has a solid management team." If Bishop can justify that sort of confidence, he may soon be humming another Stones song: *Time Is On My Side.*

By Stephanie Anderson Forest in Mobile, Ala.



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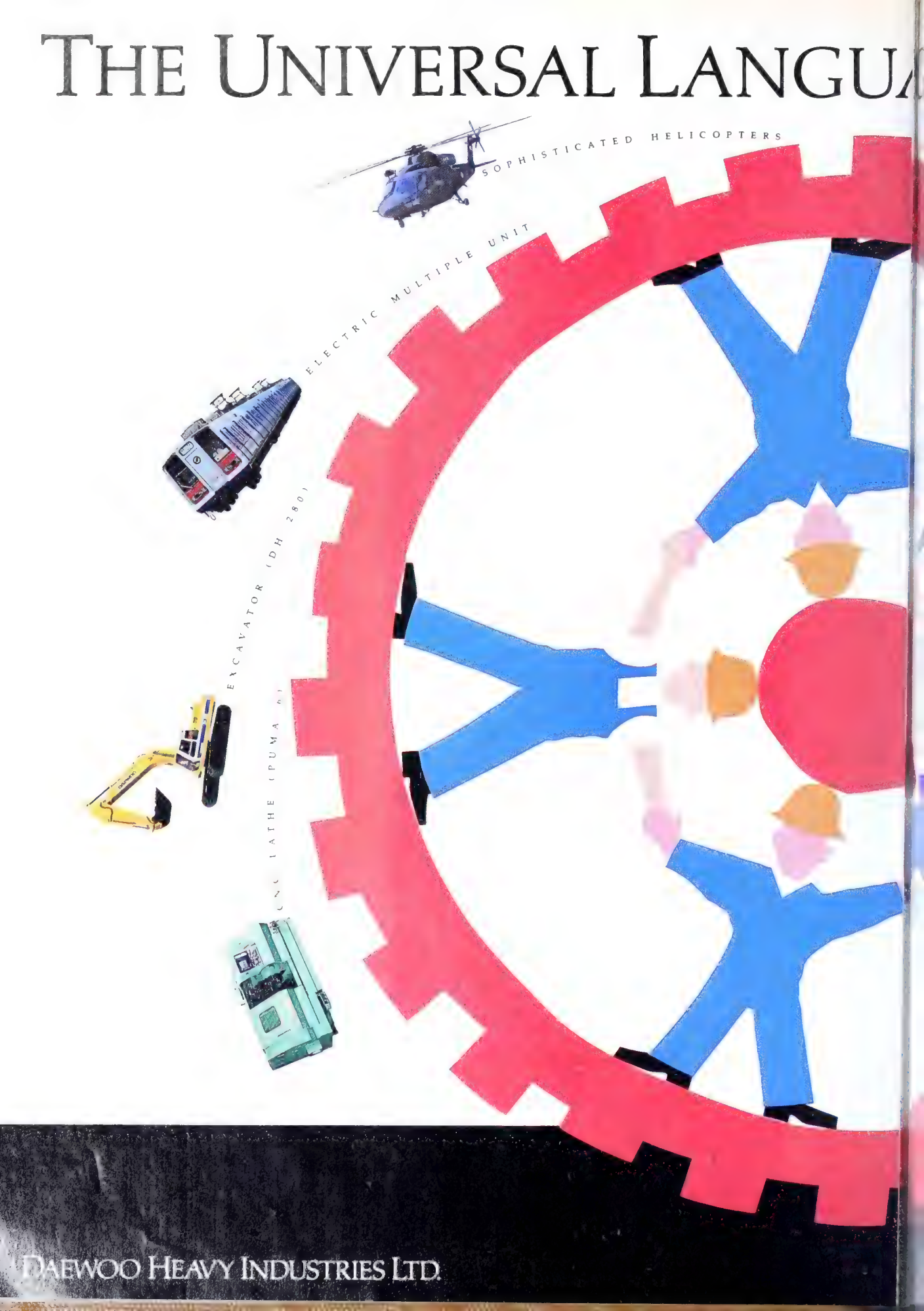

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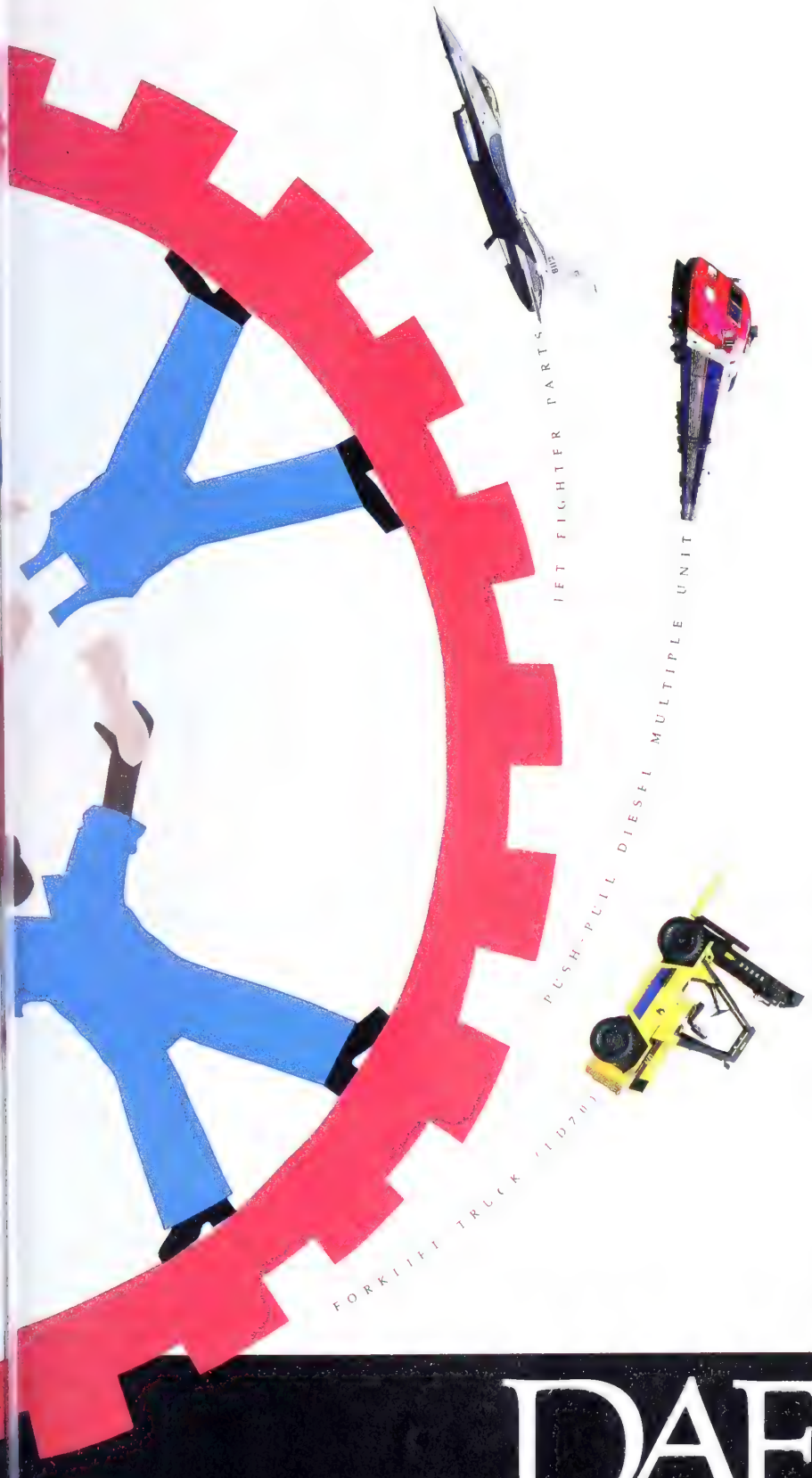

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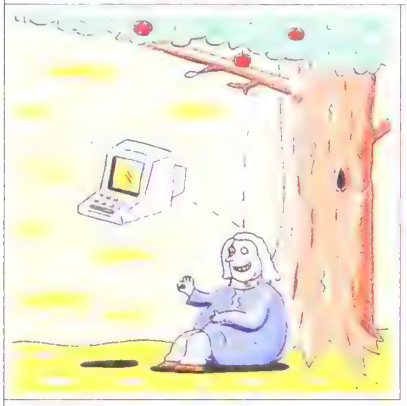


Calculus has been the bane of many a student. In the past, nonscientists could often get away with skipping it, but in today's computer era, the subject has become vital to budding managers. Now, a new teaching method makes it almost fun to learn.

The new classroom technique was developed at Purdue University by Edward L. Dubinsky, a professor of mathematics and education. His results are so spectacular that the National Science Foundation has granted him $200,000 a year for the next three years to train teachers at other universities and high schools.

Two key ingredients of the new method are computer-aided instruction and group self-education. Stand-up lecturing is kept to an absolute minimum. The teacher's main role is to introduce a new concept and then counsel teams of three or four students as they use a computer to explore the concept's ramifications. For proof that his approach fosters better comprehension, Dubinsky points to test scores. On examinations that would challenge even upperclass math majors, freshmen score in the low 70s on average. And when the study teams are tested as a group, the average score jumps to 86.

SUPERSTRONG ARMOR COULD COAT TOMORROW'S CARS

To shield cars from the elements and the salt on winter roads, auto bodies are given a zinc-iron coating. But the coating can sometimes break down under high temperatures, which occur during welding or the baking of a car's paint job.

Recently, researchers at Lehigh University patented a technique that fights fire with fire: "flash-heating" the zinc-iron coating. Rapid heating transforms the coating's crystalline structure into something called delta galvanneal, which promises to make it more resistant to heat and corrosion. It may even improve malleability. That would allow the coated steel to be formed into more aerodynamic shapes.

Co-developers Arnold R. Marder, an adjunct professor of materials science, and visiting researcher Mingyuan Gu are now checking to see how well various samples of the modified coating conform to theory. Their work is financed by a group that includes steel and zinc companies in Japan and the U. S.

BIG BLUE PLUGS IN A PC MULTIMEDIA CHIP

The ballyhooed Windows program from Microsoft Corp. may be the industry's biggest example of "shelfware"—software that rarely gets used. Why? Running Windows slows down IBM-type personal computers because these PCs don't have the graphics-processing power of an Apple Macintosh. But that should begin changing next year.

On Nov. 5, Intel Corp., which designed the microprocessor brain in IBM PCs, unveiled a companion chip called the i750 video processor. Intel says the i750 will slash the added cost of so-called multimedia computing to around $1,000—a fraction of today's price. Multimedia is the buzzword for computers that integrate full-motion video and digital audio—essentially a combination PC, television, videocassette recorder, and compact-disk player. And $1,000 will be "the magic point for this technology to take off," says Thomas W. Trainor, head of Intel's Digital Video Interactive (DVI) unit.

Industry is counting on multimedia to nurture a wave of true home computing—not just business computing done at home—and spur PC sales in the 1990s. DVI is sure to be a heavyweight contender, thanks to IBM's blessing. Still, some rivals stole the march on Intel. In October, AT&T Microelectronics announced its own multimedia chip, following a similar move in September by LSI Logic Corp.

TEACHING ENGINEERS TO SPEED PRODUCTS ON THEIR WAY

To help U. S. industry get new products to market faster, Stevens Institute of Technology is offering what may be the country's first master's and doctoral degrees in concurrent engineering (CE). Under the CE approach, engineering teams simultaneously develop both a new product's design and its production methods. Result: Both the time and cost of the overall product development cycle can be slashed by 50% or more (BW—Apr. 30).

A new Design & Manufacturing Institute (DMI), which was dedicated last month, will be the heart of the Hoboken (N. J.) school's CE program. Initially, the focus will be on products made from plastics. The DMI's research staff is already working on software that will integrate product design and production engineering for injection-molded parts. Stevens Institute's postgraduate CE thrust was financed in part by grants of $1.3 million from New Jersey's Higher Education Dept. and $700,000 from the AT&T Foundation. Digital Equipment Corp. donated $1 million worth of computers.

RUNWAY HOLOGRAMS GIVE FOGBOUND FLYERS SECOND SIGHT

Seattle's fog is legendary. But from now on, it won't delay as many flights as it has in the past. Seattle-Tacoma International Airport is the first to win approval for takeoffs guided by new technology that lets a pilot "see" in thick fog.

Developed by Flight Dynamics Inc. in Portland, Ore., the system is similar to the heads-up display (HUD) in jet fighters. A transparent screen flips down inside the windshield, and holographic images of the runway's center line and the horizon are projected onto it. Thanks to special optical tricks, the images appear to be in front of the plane, where the real runway is. The display also shows instrument readouts, which allows pilots to monitor speed and altitude without glancing down at the console. Alaska Airlines Inc. has been using the HUD system for landings for the past year, but until now, the Federal Aviation Administration wouldn't allow its use for takeoffs if visibility dropped below 600 feet.

MICONDUCTORS

'HE CHIPS OF TOMORROW MAY HAVE FINALLY ARRIVED

ut will speedy gallium arsenide live up to 10 years of hoopla?

OKING WITH GaAs: AT VITESSE, TOMASETTA IS MAKING CHIPS AS DENSE AS SILICON CIRCUITS

t was the revolution that never happened. A decade ago, many experts predicted that silicon computer chips re doomed to extinction, the victim of redator called gallium arsenide. Nicknmed "gas" for its chemical notation, As, gallium arsenide would triumph cause chips made of it would be faster n silicon semiconductors: Electrons through the brittle, silver-gray crys-, which is created by combining the tals gallium and arsenic, five to seven es as fast as they do through silicon. nstead of high performance, though, As came to stand for hype and bron promises. Its brittleness, among oth- finicky qualities, made it difficult to n into large, low-cost, integrated cirits. A few niche markets—mainly mili-y and aerospace companies—were lling to pay top dollar to reap its adntages. But some chip and computer kers who bet on GaAs folded, and the st-known gallium arsenide project, ay Computer Corp.'s long-delayed ay-3 supercomputer, has been plagued technical and financial problems.

Now, however, there are signs that llium arsenide is finally beginning to liver. A number of computer makers, luding Convex, Solbourne, and Fujitsu, are using GaAs chips in some of their machines. And on Nov. 5, Vitesse Semiconductor Corp., a startup in Camarillo, Calif., stunned the electronics industry when it announced that its advanced manufacturing techniques will let it make digital GaAs computer chips with up to a million transistors, six times more than today's biggest such chips and as many as all but the latest silicon microprocessors. "This should really break the mindset that there's something about GaAs that makes it hard to build complex circuits," says Vitesse President Louis R. Tomasetta.

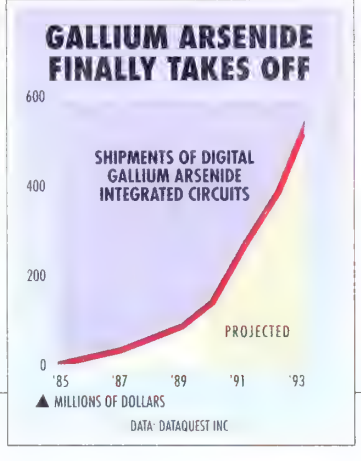
To breathe new life into the market, Vitesse and a handful of other companies have adopted a strategy different from that of a decade ago. Then, pioneers had assumed that gallium arsenide's speed was enough to win out. Seymour Cray, for instance, set out to build a supercomputer from GaAs chips designed for the highest possible speed. But Vitesse figured that speed alone wouldn't satisfy the broader market. It sacrificed some of that to make more complex chips that would cost the same as silicon but do enough more to appeal to buyers. "The days of speed-at-any-price are over," Tomasetta says.

The strategy is working. Vitesse and companies such as Gazelle Microcircuits, TriQuint Semiconductor, and GigaBit Logic are focusing on the data bottlenecks in computers. Today's microprocessors can handle more than 30 million operations a second, but the circuitry that manages communications with the memory and with other computers is too slow to keep up. This support circuitry is a natural market for GaAs chips that look and act like silicon chips but are faster. For instance, Solbourne Computer Inc., a Japanese-owned maker of desktop workstations in Longmont, Colo., found that installing four GaAs memory chips brought a 20% gain in processing speed.

GAS GUZZLERS. Computer companies whose livelihoods depend on high performance were the first to turn to gallium arsenide. A year ago, Convex Computer Corp. began using GaAs in the memory unit of its minisupercomputer, in place of a high-speed silicon technology called ECL, for emitter-coupled logic. "It's faster than ECL and only uses a third the power," says Robert J. Paluck, president of the Dallas-based company.

Convex has big plans for gallium arsenide. The technology will be pervasive in its next generation of machines, including the central processor. That will let Convex build its first high-end supercomputers. "We're going to give Cray [machines] some pretty significant competition," contends Paluck, who also sits on Vitesse's board. Because gallium arsenide consumes less power, it gives off less heat. So Convex's new supercomputer will not require the elaborate liquid cooling system that most supercomputers need.

Industry executives say that GaAs will begin showing up in smaller computers, too, from such companies as Compaq, Sun Microsystems, Tandy, Apple, and Digital Equipment. "In the next few years, we'll see gallium arsenide in about half of all desktop PCs," predicts Melvin Thomsen, a semiconductor consultant in Campbell, Calif. Market researcher Dataquest Inc. figures that by 1994, GaAs integrated circuit sales will total $1.3 billion, up from



Their communications system performs

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GTE

THE POWER IS ON

$229 million last year. The fastest growth will come from digital circuits used in computers, telecommunications switches, and test equipment (chart).

Such predictions have caught the attention of some leading chipmakers. Fujitsu Ltd., the world's largest ECL supplier, began to notice when computer designers at Convex, Amdahl, and even Fujitsu's own telecommunications unit started replacing Fujitsu chips with Vitesse GaAs circuits. Last year, the Japanese giant licensed Vitesse's designs and now is building a $200 million plant to implement them using its own GaAs technology. It's an old story. "We needed an alternate source, for credibility," explains Vitesse's Tomasetta, "but we couldn't find a U. S. company willing to ante up $20 million or $30 million for a factory." Last month, France's Thomson-CSF inked a broad licensing and marketing deal in exchange for a small equity stake in privately held Vitesse.

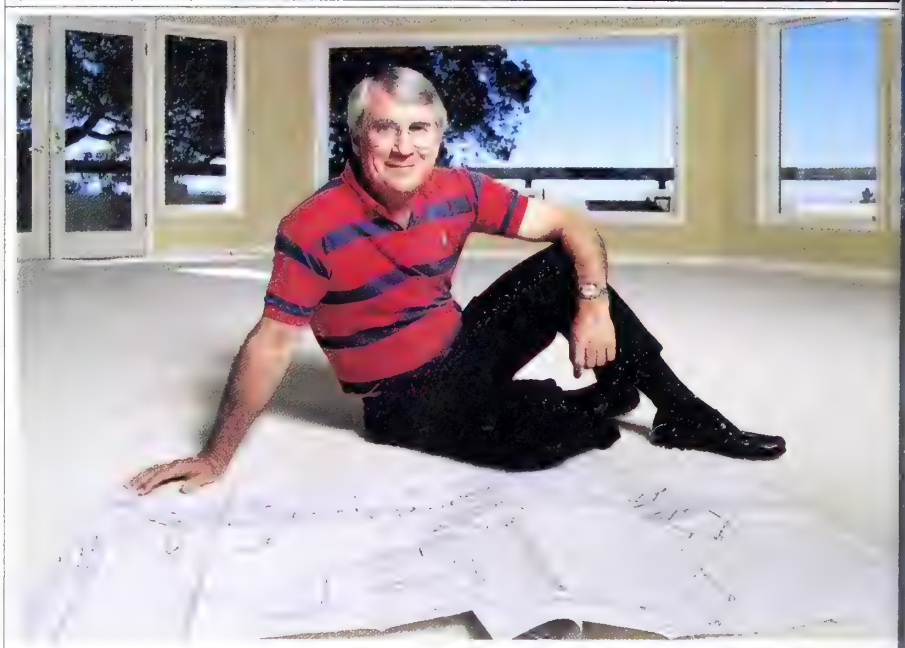
SILICON STANDARDS. The technology Vitesse uses is different from traditional GaAs manufacturing techniques. TriQuint, Gigabit Logic, and other GaAs companies use exotic gold structures in their chips to keep electrons moving at the fastest pace. Vitesse uses aluminum connections, which allows it to use the same manufacturing gear as silicon chipmakers. That enables it to underprice complicated silicon ECL chips, a billion-dollar market. This approach lets Vitesse keep pace with the semiconductor industry's constant push for more powerful chips at lower prices, says Michael J. Stark, an analyst for broker Robertson, Stephens & Co. in San Francisco.

Besides the new interest in digital GaAs circuits for computers, gallium arsenide is getting a boost in new markets for high-speed communications gear. Japanese and European companies are incorporating GaAs chips in television sets to decode satellite broadcast signals, and makers of portable phones prize its low power consumption, which helps conserve battery life. Last month, Motorola Inc. unveiled a tiny desktop communications link that uses five custom GaAs chips to send and receive computer signals within a building over radio waves instead of wires. Says Alan P. Zabarsky, manager of the project at Motorola's Radio-Telephone Systems Group: "Without gallium-arsenide integrated circuits, we'd never been able to shrink it to a practical size and cost."

Even its staunchest advocates believe GaAs will displace only part of the silicon market—where very high speed is needed. But now, at least they can begin to live down an old joke. For years it has been said that gallium arsenide is the technology of the future—and always will be. That isn't quite true anymore.

By Larry Armstrong in Los Angeles

CHIEF EXECUTIVES



O'ROURKE, NOT CONTENT WITH REVAMPING VARIAN, IS GUTTING HIS HOUSE "TO THE STUDS"

TRACY O'ROURKE HAS A NEW DRAGON TO SLAY

The overhaul ace is making his mark on electronics giant Varian

It didn't take long for J. Tracy O'Rourke to run head-on into the stubborn culture at Varian Associates Inc. Within weeks of taking over as chairman and CEO in February, he ordered new Varian signs for each of the electronics giant's 22 divisions. Not so fast, Tracy. Accustomed to feeling independent, some employees were outraged. At the Eimac Div., just a few miles from Varian's Palo Alto (Calif.) headquarters, one manager even penned an emotional memo warning of "riots" if O'Rourke changed the nameplate. "Varian owned that business for 25 years and never had a sign on the building," snaps O'Rourke. "I got more heat over changing the names than anything else."

So far, that is. O'Rourke, 55, was hired to shake things up, and he's doing it as fast as he can. Unlike retired Chairman Thomas D. Sege, a European-born scientist who felt most at home in the labs, O'Rourke is an operations man from the school of rolled-up sleeves. His credentials include a remarkable turnaround at Allen-Bradley Co. in the early 1980s, when he boosted profits by transforming the old-line maker of electromechanical switches into a strong competitor in factory automation. Now, as the first outsider recruited as CEO in Varian's 42-year history, he's trying to work the makeover magic all over again.

'DIRTY WORD.' Varian looks in need of a wake-up call. An early spin-off of Stanford University, the company makes an array of high-tech industrial products from semiconductor equipment to medical devices for cancer therapy and radar systems. But it has been run more like a scientific commune than a corporation. Despite years of Wall Street pressure, company inventors seemed more interested in technological fine-tuning than in getting products to market. Since a 1985 peak of $60 million, Varian's earnings eroded by nearly half, to $31.5 million, in 1989. "Profit was not a dirty word here, but it was not a priority," the new chairman says, grinning at the thought. "I found a culture that said it was O. K. to be late."

O'Rourke's game plan is as simple as Varian's products are complicated: shed marginal businesses and slash costs. He has put up for sale five businesses and eight product lines with aggregate sales of around $200 million. Already, Varian has sold one business—Continental Elec-

"I just saw what I want
for Christmas.
And I bet he drinks Johnnie Walker Red."
od taste is always an asset.

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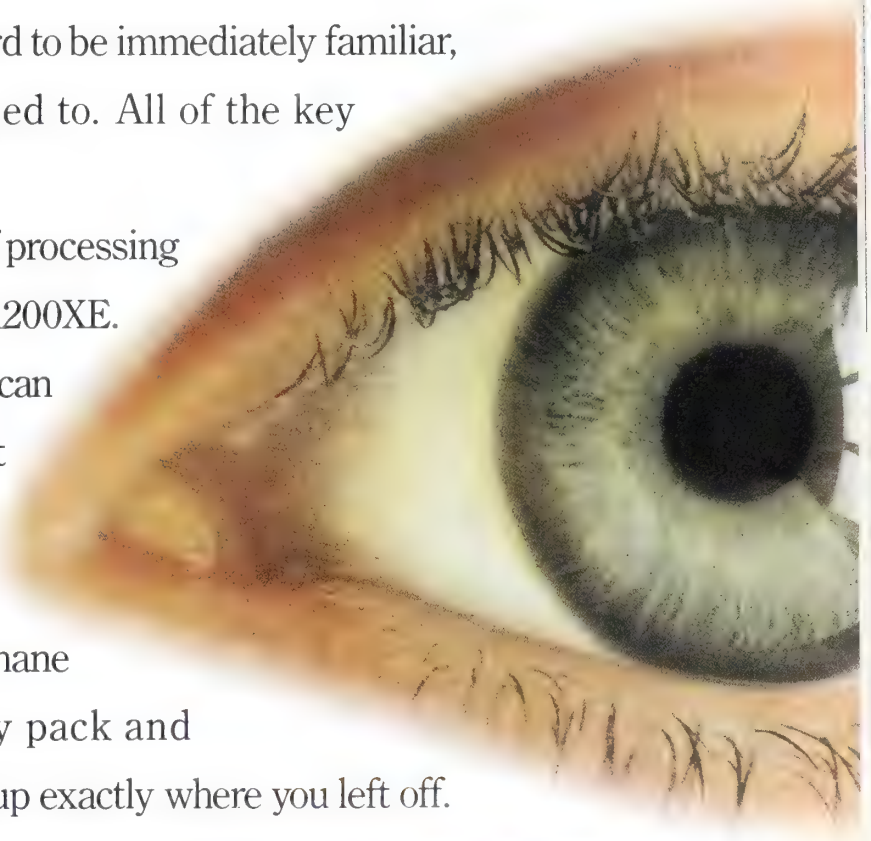

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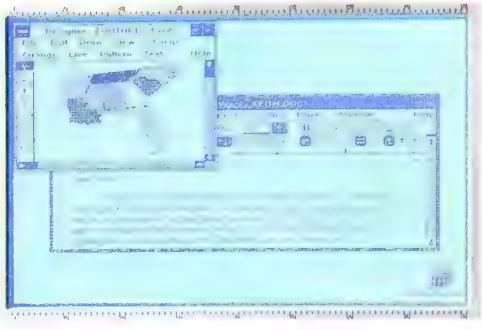

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THE PENINSULA NEW YORK
THE PENINSULA GROUP

tronics Manufacturing, for $20 million—shut two product lines, and says it has letters of intent for five other units. The overhaul will cut 1,600 employees. Coupled with 600 laid off from corporate staff, this will trim Varian's work force by 18%, to about 10,000. Over the next two years, O'Rourke is gunning to boost margins by tightening controls, increasing subcontracted manufacturing, and spending big on factory improvements.

O'Rourke's changes haven't come cheap. For the year ended Sept. 30, restructuring charges caused a $4.1 million loss on sales of $1.3 billion. But earnings from continuing operations were a healthy $44 million, up 33% from last year. The stock climbed from $20 before O'Rourke's arrival to $35 in August but drifted to around $27 in this fall's sagging market.

THROWBACK. Varian's turnaround is far from complete. A recession looms. Sales of big-ticket machines, such as semiconductor equipment, may well get socked if the economy worsens. "My biggest concern is macroeconomic," says Michael Lauer, a Kidder, Peabody & Co. analyst. "I'm concerned about recession not only in the U. S. but in Europe and Japan," where Varian does some 40% of its business. So far, Varian reports strong growth there. But insiders report discontent among Varian's rank and file. They fear more layoffs, although O'Rourke insists that most if not all the cutting is complete.

To many outsiders, O'Rourke is a welcome throwback to manufacturing basics. "He knows how to make things," says analyst Jack Modzelewski at PaineWebber Inc. Raised in Alabama, O'Rourke got a bachelor's degree in mechanical engineering from Auburn University and later served as an Air Force lieutenant. He has spent his professional career managing what he calls a "dog's breakfast" of unglamorous industrial businesses, putting his stamp on everything from meat slicers and fire equipment to computer components and dental equipment.

O'Rourke made his biggest mark to date at Allen-Bradley. In his 11-year tenure there, he nearly tripled sales, to $1.4 billion. He also expanded international business from about 7% to nearly 35% of sales and lifted margins by moving 2,000 jobs to cheaper labor markets. He also helped move the company into factory automation with more than 20 acquisitions valued at about $250 million.

O'Rourke doesn't always get what he wants. After Rockwell International Corp. bid for Allen-Bradley in 1985, O'Rourke became embroiled in a feud with Allen-Bradley Chairman I. Andrew "Tiny" Rader over whether the old-line Milwaukee company should be sold. President O'Rourke and CEO C. R. "Bud" Whitney tried to engineer a management buyout to keep it under local management. But they failed. O'Rourke stayed on at Rockwell for five years after the $1.65 billion takeover, becoming one of three chief operating officers at the parent. But when Varian called, he was won over by the challenge of doing an overhaul. "Tracy has got to have dragons to slay," says Kenneth F. Yontz, a former Allen-Bradley colleague who now heads Sybron Corp.

O'Rourke is not the classic Silicon Valley type. Blunt and sometimes caustic, he eschews the flashy cars and lifestyles of some of the valley's hotshot entrepreneurs. Even his home is different. He rejected the usual brand-new house in favor of an older one on three acres in Portola Valley. But he and Lou Ann, his wife of 35 years, are gutting it and starting over. "We're taking it to the studs," he says.

MAKE THE CASE. The nice thing about redoing a house, as opposed to a company, is that it doesn't fight back. O'Rourke knew Varian's $75 million gallium-arsenide chip business had to go. It was barely breaking even, and he saw slim prospects for profits. But top lieutenants fought him, urging O'Rourke to "go slow," because of their long-standing attachment to the radiation-resistant semiconductor technology Varian had developed more than 20 years before (page 89). O'Rourke gave managers a chance to make their case. But after four months and three presentations, he axed the business. "Some problems require an outsider with no emotional baggage," says analyst Stephen Balog at Shearson Lehman Brothers Inc.

Respect for the outsider is beginning to catch on inside the company, too. Says Ray Shaw, a vice-president: "He has set priorities that should have been addressed a long time ago." Those priorities should reflect well on the bottom line. Some analysts believe O'Rourke could drive profits to around $100 million on sales of $1.5 billion by 1993. If he can, even Eimac employees may be proud to have Varian's name on the door.

By Barbara Buell in Palo Alto, Cal.

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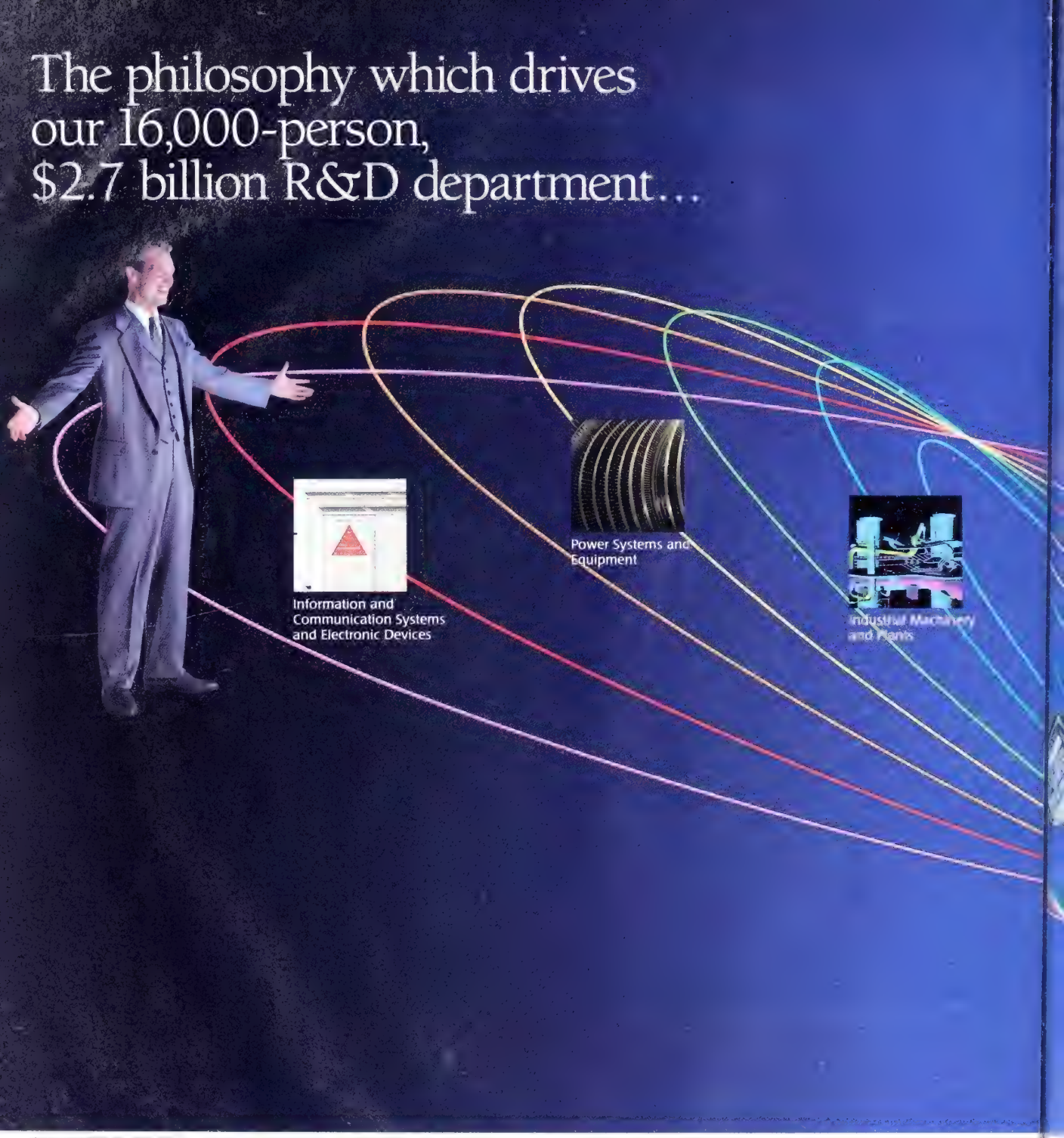

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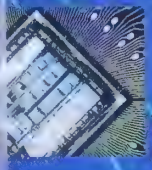

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*$2,718 million; net R&D expenditures for the year ended March 31, 1990. US$1 = ¥158

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AIRLINES

FEAR OF FLYING IN AD LAND

Airline accounts may be more trouble than they're worth

EASTERN'S SHUGRUE IN A TV COMMERCIAL, AND A TWA PRINT AD: TOUGH TIMES HAVE LED TO ACCOUNT SHUFFLING AND AN EMPHASIS ON FARES

Even on Madison Avenue, where bluster and bravado are commonplace, it was a bruising battle of wills.

In a tense meeting late in September, Shelly Kravitz told Young & Rubicam Inc. that he was planning to cut its compensation by several million dollars. Kravitz, the tough-talking vice-president of advertising at Trans World Airlines Inc., gave the agency little choice: Y&R could either swallow the lower pay or bid farewell to TWA's $45 million account. The agency claims it would have lost millions if it acceded to Kravitz' demands. So on Oct. 3, it resigned the account. Says Y&R President Joseph E. De Deo: "They made us an offer we could refuse."

The messy divorce of TWA and Young & Rubicam follows a string of other breakups between agencies and airlines (table). But conservative Y&R's decision to dump its prestigious client shows a disaffection that goes beyond routine friction. To hear some ad execs tell it, many airline accounts are simply unpalatable these days: Deep cost-cutting, frequent account shifts, and large staffing demands have made them more trouble than they're worth.

"There has been a deterioration of professionals in the airline business who understand marketing," says John P. McGarry, chairman of Y&R New York. McGarry and others worry that Kravitz' tactics will become more common as escalating oil prices put the airlines under increasing financial pressure. While Y&R won't discuss the profitability of the TWA account, executives familiar with the agency say it had already lost $[illegible] million in the last year.

NO HEYDAY. TWA isn't alone in cutting its marketing budget: Pan American World Airways Inc. cut its ad spending 3.6% in the first six months of 1990, and Continental Airlines Inc. slashed its spending 34%, according to market researcher Leading National Advertisers. At the same time, the airlines want their agencies to generate growing amounts of day-to-day advertising to promote frequently changing fares.

It's a long way from the heyday of airline marketing in the '60s and '70s when agencies celebrated the glamour of air travel with slogans such as "Wings of Man" for Eastern Air Lines Inc. and "Fly the Friendly Skies" for United Airlines Inc. Wells, Rich, Greene Inc., which built its reputation with stylish ads for Braniff Inc., was stunned three weeks ago when its current client Continental, decided to shelve temporarily a $20 million campaign to introduce a new corporate logo and color scheme for its planes. That confirmed the fears of another agency, J. Walter Thompson, which declined the $50 million account last March because it was uneasy with Continental's finances.

Young & Rubicam's problems with TWA began after Chairman Carl C. Icahn hired Kravitz in March to squeeze dollars out of the marketing budget. Kravitz' austerity plan calls for paying a new agency no more than an 8% commission on media billings. That's about half the industry's traditional 15% commission.

Kravitz' stingy commission plan has turned the TWA account into something of a pariah among big-name agencies: Lintas USA refused to take the business, though it has been assiduously courting other airlines since Eastern left it last May for Ogilvy & Mather. The shops now vying for TWA are all smaller agencies with little airline experience. Kravitz may move the media-buying portion of the account in-house, which would reduce an agency's billings even further.

Even in good times, airline accounts

TURBULENCE ON MADISON AVENUE

SWITCHES IN MAJOR AIRLINE ADVERTISING ACCOUNTS SINCE 1988

	Old agency	New agency	Budget Millions
TRANS WORLD	Young & Rubicam	Pending	$45
EASTERN	Lintas USA	Ogilvy & Mather	45
CONTINENTAL	Ayer	Wells, Rich, Greene	50
PAN AMERICAN*	Wells, Rich, Greene	Della Femina McNamee; Grey	51

*Della Femina handles Pan Am; Grey handles Pan Am Shuttle

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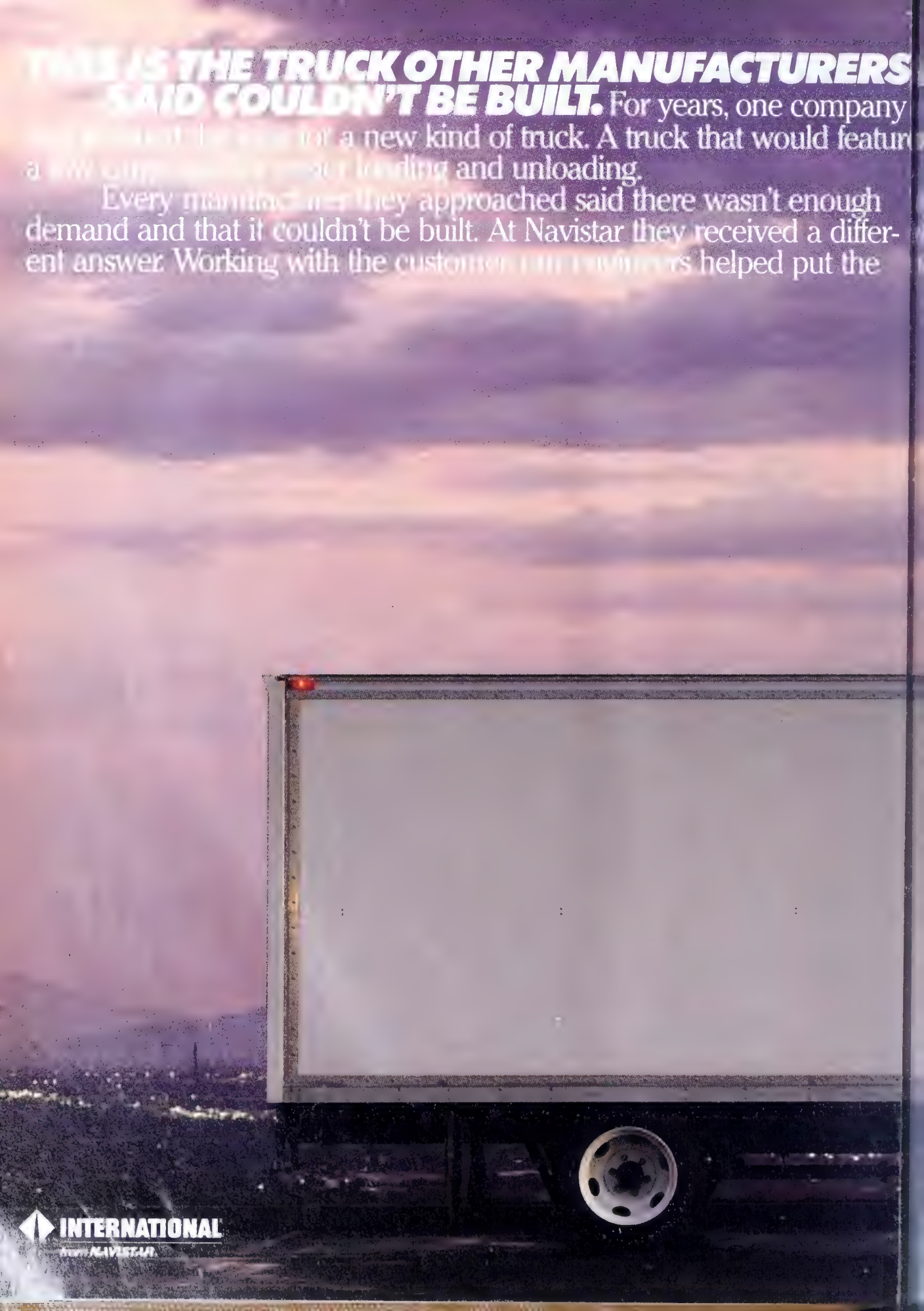
Every manufacturer they approached said there wasn't enough demand and that it couldn't be built. At Navistar they received a different answer. Working with the customer, engineers helped put the



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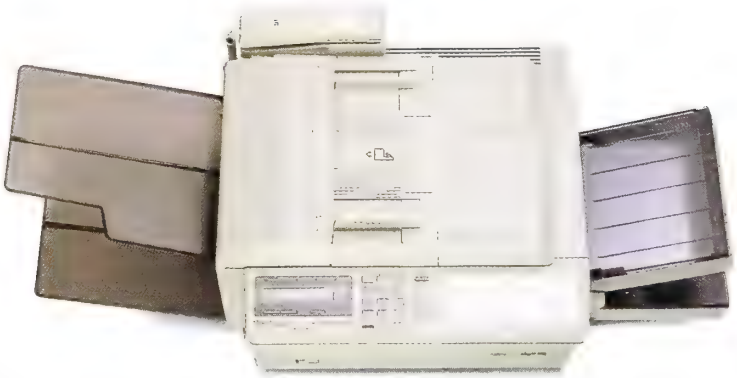

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en't easy: Agencies have always had juggle the task of fashioning a dura- brand identity with the need to pro- te new routes and airfares. Deregula- n forced carriers to shift even more lars into campaigns promoting low es. This has required agencies to intain large creative and media staffs turn around new ads quickly. Y&R, for ample, employed 70 staffers on the A account—more than on other ac- nts of similar size.

These days, such a personnel commit- nt seems questionable, given that air- es are hopping from shop to shop with wing alacrity. When Eastern left Lin- , the agency was saddled with dozens trained airline people and no account handle. Lintas says it found other s for those employees, but the loss t a bad taste: The agency maintains it had stood by Eastern for eight ars—even sending staffers to answer nes at Eastern's Miami headquarters en it had to lay off marketing em- yees after filing for Chapter 11. orge J. Brennan, Eastern's senior e-president of marketing, also praises tas. But he says that when court- pointed trustee Martin R. Shugrue Jr. k over the carrier, he decided that it s time for a new agency.

RIDED. Behind these gripes is a sense t airline marketing isn't just more tly these days: It's also not as much anymore. Scali, McCabe, Sloves Inc., ich handled the Trump Shuttle, was eatedly derided for its work by Don- Trump before he finally yanked the million account in September. And greater emphasis on fares has de- cted agencies from doing the brand- age advertising they like most. Some ecutives say the asset shuffling of the riers distracts from the process of king ads. Says an executive familiar h TWA: "You could be in a copy meet- with Carl, and in the next room, ites were being sold off."

Not all airlines have clashed with dison Avenue. Financially secure car- rs such as American Airlines Inc. and ited have had generally stable rela- nships with their agencies. Leo Bur- t Co. is celebrating 25 years with ited: the "Friendly Skies" campaign es from its first year on the account. Such partnerships don't impress elly Kravitz. He says the average con- mer doesn't respond to high-flown im- e advertising anyway. Most leisure velers, he claims, choose airlines sed on price. "Carl Icahn didn't hire to get any award-winning advertis- g," Kravitz says. "He hired me to get sults-oriented advertising."

With sentiments like his taking hold, e ad business is finding the friendly es downright hostile.

By Mark Landler in New York

Entertainment

NETWORKS

CAN JEFF SAGANSKY DRUM UP A HIT PARADE AT CBS?

As profits slide, all eyes are on the programming chief

Call it typecasting. The writers of struggling CBS comedy *Doctor, Doctor* needed someone to play a stressed-out network executive. So they tapped their own Jeff Sagansky, the 38-year-old programming chief who signed on last December to bring the third-rated network back from the Nielsen outback. "Do you have a stressful job?" Dr. Mike Stratford asks his frazzled patient in the Nov. 8 episode. "Only head of a network," answers Sagansky. "Hit TV shows are all they want from me."

No joke. While Sagansky has lured talent and developed some promising new shows for the network's prime-time schedule, even he says it will take years for a ratings turnaround. Look at CBS during the first seven weeks of the new TV season. In the tightest race ever, CBS Inc. grabbed second place behind NBC in the number of households that tuned in during prime time. Why? The big boost came largely from the World Series and a promotion with K mart Corp.—not from the network's regularly slated programs. One encouraging sign: CBS has begun to improve its showing with kids and young adults—the viewers that advertisers will pay more to reach.

'DOUBLE WHAMMY.' CBS needs lots of help. The network's operating profit this year could slide to $21 million on $2.5 billion in revenues from $110 million on $2.3 billion in revenues in 1989, figures First Boston Corp. analyst Jessica Reif. The culprits: an estimated $80 million in losses when the World Series only went to four games, higher programming costs, and the expense of covering the Persian Gulf crisis.

And it could get worse. Recently, Chairman Laurence A. Tisch agreed to spend $2.6 billion on high-profile sporting events. The strategy: to grab ratings and promote new shows. Unfortunately, Tisch bought the sports just as a recession and a sports glut hit television advertising sales. "It was a double whammy," says Jon Mandel, director of national broadcast at Grey Advertising Inc. The worsening financial picture and the recent death of CBS Chairman William S. Paley add fuel to talk that Tisch would like to unload the network. But many analysts figure he would rather fix it first.

SAGANSKY (LEFT) AS A STRESSED-OUT TV EXECUTIVE ON *DOCTOR, DOCTOR*

No wonder everybody's watching Sagansky, a former executive at Tri-Star Pictures and NBC Inc. CBS sorely needs some winners. Of CBS's 12 new shows, Sagansky can take credit for a half-dozen, including such promising entries as *The Flash, The Trials of Rosie O'Neill,* and *Over My Dead Body.* No Sagansky show has cracked the top 30 yet. But some, including *The Flash,* appeal so strongly to younger viewers that analysts predict they could become hits. What's more, CBS has a handful of returning shows that have improved their ratings, such as Monday night's *Designing Women* and *Murphy Brown,*

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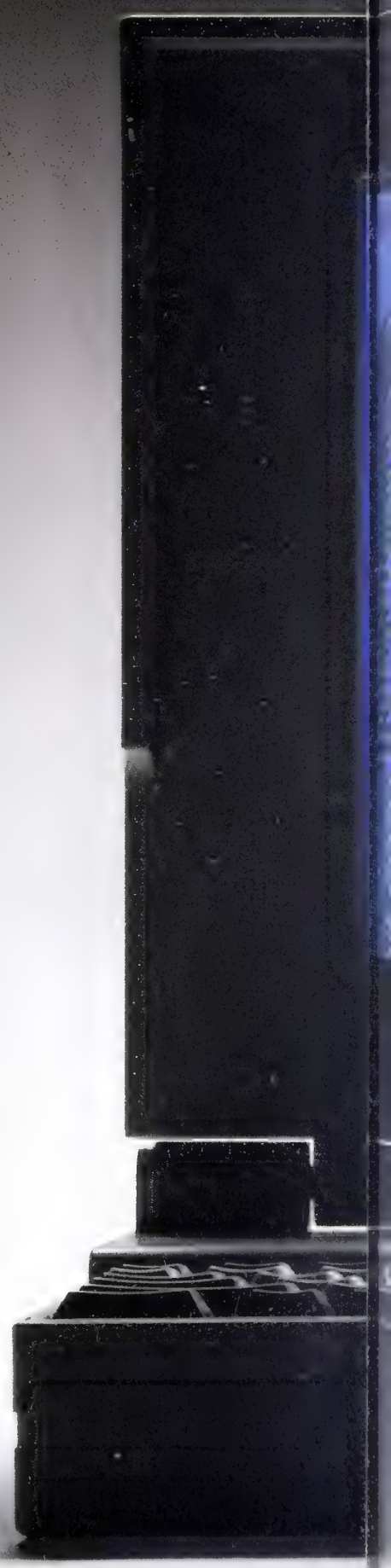

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rated No. 6 and No. 7, respectively.

The upshot? "The race this year will be for second place, and it will be tight," says media buyer Paul Schulman. Ironically, the reason might not be so much the improvement of CBS as the deterioration of the competition. After five years at the top, NBC's household rating of 13.3 this season is down by 11% from last year. And ABC, which surged in the ratings last year with such hits as *Roseanne* and *America's Funniest Home Videos*, slipped 9%, to 12.5. CBS increased by 3%, to 13.

The Big Three are closer than they've ever been going into the November sweeps, where the trick is to lure viewers with splashy events. CBS has taken the big-ticket approach, spending heavily on such first-run movies as *Fatal Attraction* and *Moonstruck*. Sagansky also spent $60 million this spring to win the rights to Universal Pictures films away from both pay-cable services and the other networks.

The shopping spree was the first sign that Sagansky has shaken off the restraints that New York executives had put on his predecessor, Kim LeMasters. CBS insiders say LeMasters was frequently second-guessed by Tisch, limiting his ability to make deals with Hollywood talent. Says Sagansky: "They promised me that they were going to leave me alone to run the division. And so far, they have done just that."

Sagansky jolted the CBS schedule when he took over. He canceled a dozen shows, including faded winners such as *Falcon Crest* and the cult hit *Beauty & the Beast*. He eased out LeMasters lieutenant Barbara Corday and canceled several commitments that his predecessors had made.

Sagansky faced a dual chore: luring younger viewers while keeping CBS's traditionally older audience intact. For older viewers, he enlisted *Designing Women* producer Linda Bloodworth Thomason to create *Evening Shade*, a comedy starring Burt Reynolds. During a 45-minute lunch with producer Barney Rosensweig, he ordered *The Trials of Rosie O'Neill*.

For the younger set, Sagansky held on to *Uncle Buck*, a LeMasters-developed sitcom based on the John Candy movie. But he also ordered *The Flas* as a series after LeMasters had dow graded the project to a movie of th week. That meant taking a big chanc The series, with its high-tech special e fects, costs $1.6 million an episode make, $935,000 of which CBS pays. C pays roughly $800,000 an hour for mo hour-long shows.

Sagansky also did some fence-men ing. For a decade, since the days of *A in the Family* and *One Day at a Tim* many of the best producers have b passed CBS. "They [CBS] were arroga because they had been on top for long," says producer Robert L. Boyet "They became the last stop in town Boyett and partner Thomas L. Mill produce the ABC hit shows *Perfe Strangers* and *Fu House*. Sagansky talk them into moving to C this year. Other deal Steven Spielberg ar *Batman* Director Ti Burton are making an a imated series called *Fa ily Dog*, while Farr Fawcett and Ryan O'Ne will star in *Good Sport*

UNEVEN RECORD. Althoug costs have soared, t payoff in ratings cou come in three to fi years. CBS is banking Sagansky's track reco for that. The Harva MBA first worked at C as a financial analyst 1976. Sagansky made t transition to progra ming as a low-level exe utive at NBC. Later, headed series develo ment for NBC, when t network first grabbed top ranking. Working f Brandon Tartikoff fro 1983 to 1985, he help develop hits *The Cos Show* and *Family Ties*.

CBS came calling on Sagansky thr years ago but wouldn't give him t autonomy he wanted. Instead, stayed at Tri-Star, where he had an u even record of making films. When t network's negotiations with *Cosby* pr ducers Marcy Carsey and Tom Wern fell apart, it again went after Sagans and acceded to his demands.

CBS had wanted Carsey and Werner bring *Cosby* and *Roseanne* with the Jeff Sagansky comes with no such tre sures, but Hollywood likes worki with him. Still, he could sure use so hit shows soon to relieve the stress.

By Ronald Grover in Los Angeles, w Susan Duffy in New York

CBS STRUGGLES TO COME BACK

SPORTS

Spent extravagantly on events to jump-start ratings. It's helping, but if ad sales don't pick up, costs of sports rights could outweigh the benefits

ENTERTAINMENT

Hiked spending, improved quality. But needs from three to five years to get out of ratings cellar

NEWS

Hurt by costs of covering Persian Gulf crisis, evening news slipping. Created *America Tonight* for new revenue, but faces ABC's popular *Nightline*

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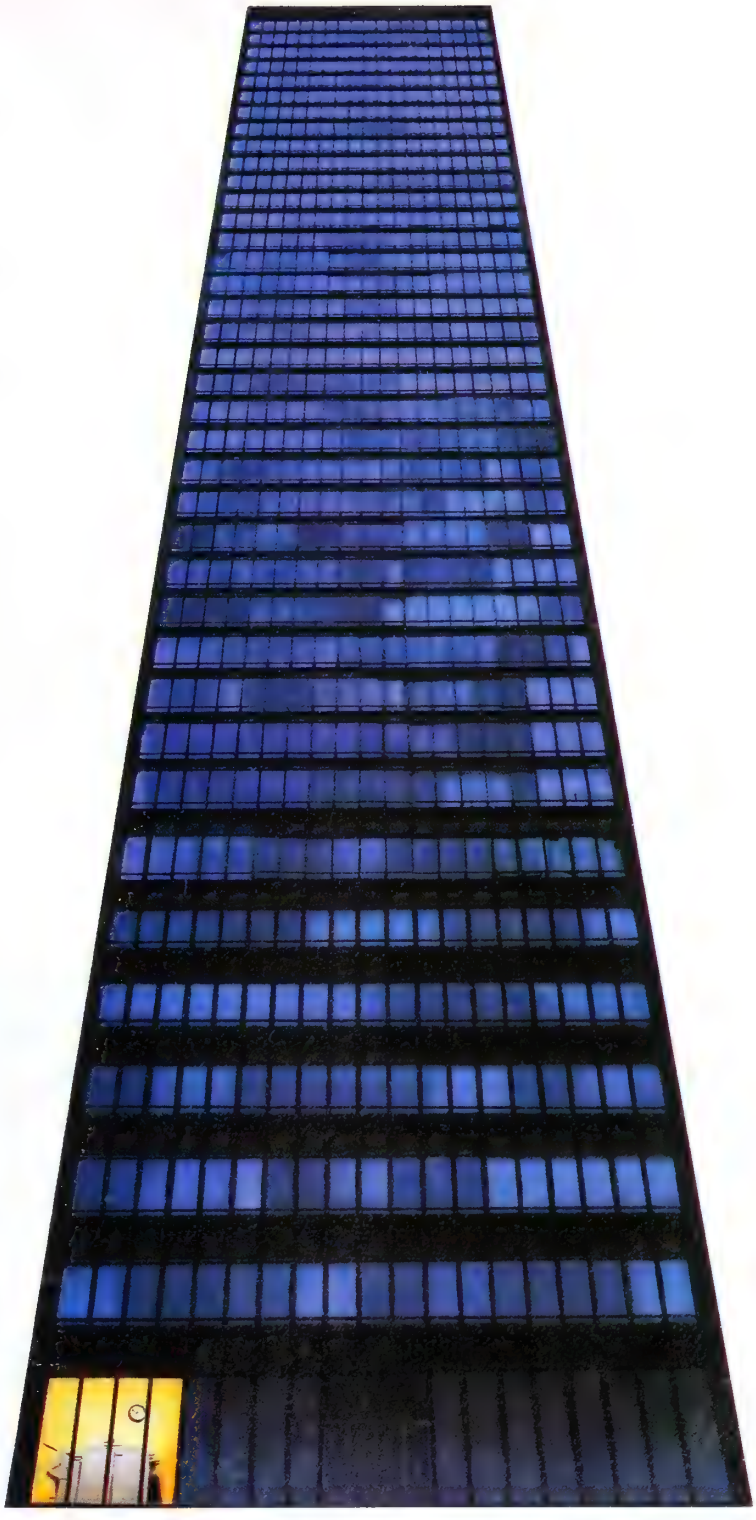

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PENSIONS

PENSION SQUABBLES: BATTLE LINES MAY BE SHIFTING

Proposed changes would let plaintiffs seek punitive damages

RETIREE DEVINNEY CAN'T FIND A LAWYER HE CAN AFFORD: "I'M AT THE END OF MY ROPE"

Robert C. Devinney Jr. wants make a federal case out of $87 month—but he's having a ha time getting to court. The retired Cos Mesa (Calif.) engineer claims that h former employer withheld paymen from a profit-sharing plan and used i proper assumptions to calculate his pe sion. Devinney says he should be rece ing $419 a month instead of the $3 he's getting.

Before retiring last January, Dev ney, 71, began an odyssey familiar other dissatisfied pensioners: the unsu cessful search for a lawyer to take h case. Devinney says he has spoken wi 17 attorneys, all of whom asked t more than he can pay. "I'm at the end my rope," he says.

STACKED DECK. No one has a fix on t number, but pension-rights advocates e timate that each year, thousands of in viduals are deprived of their rightf pension, health, and disability benef because of employer error or dirty de ing. But legal fees can hit $25,000—w beyond what many retirees and worke seek to recover.

That may now change. The Lab Dept. is preparing a bill that would b

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t of 1974 (ERISA). The legisla-
n lets pensioners with a beef
:k relief only in federal
urt, and it bars punitive or compensa-
y damages.

TTERY-SIZE RELIEF? But the Supreme
urt could open another avenue for re-
:ss. It is scheduled to review the case
a former salesman at Ingersoll-Rand
who was fired four months shy of
:ting for pension benefits. He won the
ht to file a pension-related wrongful-
mination lawsuit in the Texas state
urts. If the high court upholds that
ing, pensioners could turn to state
urts—and seek lottery-size punitive-
nage awards. Says Stephen A. Bokat,
ieral counsel for the U.S. Chamber
Commerce: "Business believes it can get a fairer shake in federal court."

Corporate lobbyists also claim that the Labor Dept.'s proposal could unleash a similar wave of suits and induce jury-averse employers to provide benefits where they're not due. Indeed, the agency hopes that more private suits will buttress the efforts of its limited staff. Each year, Labor's 300 inspectors review only a handful of the nation's 5 million benefit plans. And most of the violations the agency does pursue involve fund mismanagement, not disputed benefits.

That means that pensioners are pretty much on their own. But few lawyers will take on their cause. Usually, attorneys accept such cases on a contingency-fee basis: The lawyer gets a third of the award if his client wins, nothing if he loses. But ERISA allows only recovery of actual benefits lost—no pain and suffering and no punitive damages. So the potential gains are too small to make it worth an attorney's time. "Private enforcement of ERISA rights is a difficult and treacherous business," says lawyer Michael S. Gordon.

Pension-rights advocates applaud Labor's proposal. But they want it to cover simple benefit disputes, not just fund-mismanagement cases. Advocates also urge mandatory arbitration and stiffer penalties. "Without punitive damages, there is never any incentive for an employer to settle," says Kansas City (Kan.) lawyer Donna M. Dill.

As health care costs rise and the population ages, the number of pensioners and workers who say they're being cheated could soar. But without change, many will find themselves in the same fix as Robert Devinney: anxiously waiting for their day in court.

By Susan B. Garland, with Tim Smart, in Washington

A BOOST FOR PENSION ENFORCEMENT

The Labor Dept. is drafting a bill to make it easier for individuals to sue employers in benefit disputes. Its proposals include:

- Allowing courts to award attorney and expert witness fees to workers or pensioners who win civil suits
- Awarding 'bounties' for information leading to successful government civil actions
- Forcing courts to review the entire record in pension cases instead of deferring to the decision of plan administrators
- Toughening auditing standards for pension plans and imposing stiffer penalties on violators

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Commentary/by Christopher Farrell

WELL, IT MAY NOT BE THE 1930s, BUT . . .

After almost eight years of economic expansion, consumers are running scared. Business is hurting, and loan money is scarce. And what do government policymakers do? They raise taxes and hold money tight.

Sound familiar? All that was true in the early 1930s, and it seems to be true again now. In late 1990, the economy is sagging, the financial system is fragile, and real estate prices are crumbling. Yet federal, state, and local governments are raising taxes, the Federal Reserve Board is pursuing a stingy monetary policy, and bank regulators, by pushing hard for higher levels of capital, are exacerbating an economywide credit crunch.

Are the policymakers repeating the economic mistakes of the past? In a word, yes. To be sure, nothing about the conduct of policy today suggests that the economy could contract by 29%, as it did between 1929 and 1933. Indeed, the government's vast safety net, from unemployment insurance to federal deposit insurance, makes such an economic cataclysm well-nigh impossible.

Yet the 1930s also showed that an economy can stagnate for a decade, with growth and employment at low levels. The great risk today is not economic Armageddon. It is that the combination of tighter fiscal policy and stringent money policy could turn the impending recession into one far longer than many economists currently expect. And Washington, by seeming to forget a lesson of the 1930s—that it takes vigorous government action to bolster a slumping economy—may be ensuring years of subpar economic growth.

There's no doubt that the Fed is acting to dampen inflationary pressures—but at the expense of economic growth. The broad-based money supply, M-3, is increasing at a mere 1.8% annual rate. Banks are making fewer loans to meet regulator demands that they raise their capital base. Total bank loans are up only 2.6% over the past year, while business loans are down 1.7% and personal loans are off 2%. The credit contraction is pinching hard both borrowing and spending plans. But it's far from a Depression-era credit crunch. The money stock, for example, contracted by more than a third between 1929 and 1933.

VICIOUS CYCLE. The just-completed budget accord also echoes the 1930s. In 1932, under President Hoover, federal income tax rates were doubled (the highest tax bracket jumped from 25% to 63%), excise taxes were broadly imposed, and corporate tax rates rose from 12% to 13.75%. In 1991, taxes will go up by about $24 billion, and government spending will be cut by about $16 billion. The hit to GNP, although less than 1%, is still restrictive. "The [recent] budget compromise is not quite a Herbert Hoover step, but it is a step in the wrong direction," says Robert Eisner, an economist at Northwestern University.

Of course, government policies, by putting the squeeze on people, are greatly adding to the risk that the economy's slowdown could steepen. And any recession carries the potential of being long-lived. Already, downward momentum is beginning and a vicious cycle could easily set in. The jobless rate is up and incomes are off. Consumer confidence has dropped. The Conference Board's consumer-confidence index has plunged by 40% in the past two months, to an eight-year low. "There may be a crisis of consumer confidence developing," says Robert M. Giordano, chief economist at Goldman, Sachs & Co. "And that could have real consequences."

And what is government doing? It's manipulating the levers of power to dampen economic activity. In the early 1930s, many business leaders viewed the economy's slowdown as beneficial, the inevitable chastisement after years of financial extravagance. They lauded government fiscal and monetary conservatism as prudent economics.

It wasn't. Today, many people are also saying that in order to squeeze out the financial excesses of the 1980s, the Federal Reserve must stay on its tightfisted monetary course. Perhaps. But the Fed is clearly running the risk that the recession could be needlessly painful by erring on the side of conservatism.

ARE POLICYMAKERS REPEATING THE MISTAKES OF THE PAST?

THE 1930s...	...AND 1990
Washington passed the Tax Revenue Act of 1932, which nearly doubled income taxes, raised or created a variety of excise taxes, and boosted corporate taxes from 12% to 13.75%. The economy's slide was accelerated	To reduce the budget deficit by $500 billion, Washington has just agreed to raise federal taxes by some $137 billion over five years and to cut federal spending. Already, 24 states have raised taxes by $10.6 billion for fiscal 1991
The Federal Reserve let the money supply fall by a third from 1929 to 1933	The Federal Reserve, determined to fight inflation, is holding money supply growth to only 1.8%, the slowest in 20 years
By refusing to pump enough money into the economy, the Fed helped bring on the collapse of the banking system	Bank regulators are enforcing the 7.25% capital ratios required by international agreement. Bank loans are up only 2.6%

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MILKEN AND WIFE: THE DEFENSE USED ARFTUL CROSS-EXAMINATION TO UNDERMINE MUCH OF THE GOVERNMENT'S EVIDENCE

BOTH SIDES TOOK THEIR LUMPS IN THE MILKEN HEARING

The feds' case was far from overwhelming—but it may have been enough to hurt him badly

For four years, the battle was waged with an almost unrelenting torrent of charges and countercharges, leaks to the press, and aggressive public relations ploys. Then, last April, junk-bond king Michael R. Milken capitulated to prosecutors and pleaded guilty to six relatively minor felonies. But the overarching question remained: Was Milken really, as the government has long alleged, a master criminal?

Last month, the government and the defense met for the first time to duke it out in open court. After a spirited brawl, both sides seemed to come out losers. The government's master-criminal contention was badly deflated, while defense claims that Milken was merely an infrequent trespasser seemed hollow.

The forum was an unusual eight-day hearing before Federal Judge Kimba M. Wood, who is set to sentence Milken the week of Nov. 12. Wood will probably not formally rule on the evidence presented, but will use it as background in deciding his sentence. The government sought the hearing mainly to show that Milken's wrongdoing was more pervasive and serious than the offenses to which he pleaded guilty. The hearing focused mostly on three securities transactions chosen by the government, presumably because it had powerful evidence, to demonstrate that Milken manipulated stocks, traded on inside information, and bribed investment managers.

The nearly two dozen law professors and attorneys canvassed by BUSINESS WEEK tended to agree that the government failed to convincingly link Milken directly to wrongdoing. "Their evidence was very wishy-washy," says Alan R. Bromberg, a professor at Southern Methodist University. The government may have scored much better with testimony involving "atmospherics," ambiguous incidents, such as destruction of d uments, that suggested a casual attitu toward the law by Milken and his und lings. Despite the absence of proof illegality, observers say, the governm was able to show that some of Milke actions were of dubious propriety. M ken was clearly "dirtied up," says R H. Weingarten, an attorney for a form Drexel Burnham Lambert Inc. employ who was a government witness. "T defense must fear that Judge W came away with the impression t Drexel was a shabby shop doing lots things wrong, and at the heart of it w Michael Milken," says Columbia Univ sity Professor Harvey J. Goldschmid. this assessment is right, Milken co face a stiff sentence—perhaps five ye or more.

Still, the government's credibility w damaged, which could help Milken. I phone conference with attorneys bef

hearing, Wood noted that the ernment had alleged Milken s "one of the worst white-col- felons in history." The Milken t emerged from the hearing far short of that standard. overselling its case, says Jed Rakoff, a securities attorney, government "cast doubt on ether their entire case is as ng as they've presented it."

MISSION. The defense undercut ch government evidence with ful cross-examination. Prose- ors alleged that Milken had nipulated the stock of Wickes . in 1985 to permit the compa- to redeem some convertible ferred stock. The defense ad- ted a manipulation had occurred but ied Milken was involved. The govern- nt's contrary claim rested mostly on word of Drexel trader Peter R. Gar- er, who, like most government wit- ses, testified under immunity. The ense badly impugned Gardiner's ac- nt by making him admit he had re- tedly lied to the grand jury and the urities & Exchange Commission.

o back up claims that Milken was an der trader, prosecutors showed that 983 he bought for his own account a ge block of Caesars World Inc. bonds days after he and other Drexel offi- s had discussed financing options h Caesars World executives. The de- se denied the meeting produced in- information, a conclusion shared by ny securities experts questioned by INESS WEEK. Caesars was not a xel client, and the meeting, arranged Drexel's behest, produced no deci- ns on what, if anything, Caesars ht do.

he government's t case involved the 5 leveraged buyout Storer Communica- ns Inc. by Kohlberg vis Roberts & Co. encourage prospec- investors in the l, KKR issued war- ts as a sweetener. e government imed that Milken d the warrants as il- al gratuities. He al- edly permitted some d managers to per- ally invest in the rrants at bargain es to induce them to est the funds they naged in the Storer l and to cultivate ir loyalty. The de- se showed that the nagers bought into warrants after they

WILL WOOD BE SWAYED BY THE "ATMOSPHERICS"?

committed to invest in the deal. And it claimed the warrants were valued at market prices. While evidence tended to show the warrants were sold at below-market prices, that is far from clear, and the law on such dealings is ambiguous.

If the presentencing hearing had been a criminal trial, many observers believe Wood would have thrown out most or all of the charges. But because the evidence is merely background information, she may draw conclusions on much lower standards of inference and reliability. That may not be good news for Milken. "If she rules on whether Michael committed crimes, we're O. K.," says an attorney close to the defense. "But if she thinks about ambience and smell, it has to have a negative impact."

In the Wickes case, Wood could infer that Milken must have known about the manipulation and directed it. "It's unthinkable that a transaction like that could have gone on without his knowledge," says an attorney familiar with Milken's junk-bond operations.

Drexel's meeting with Caesars, while likely providing no inside information, did give Milken an advantage unavailable to the public. "You can tell a lot from a meeting about the probabilities [of a deal], even if people haven't decided," says Bromberg. Wood could infer that Milken's purchase right after the meeting was skating too close to the edge of the law. While the evidence is ambiguous, and prosecutors failed to conclusively show bribes in Storer, says Goldschmid, Wood may infer that Milken regularly gave special deals to favored money managers "to build them up for the next deal."

Beyond the three transactions, the government elicited other evidence that hurt Milken. He has already admitted that subordinates kept written tallies of an illegal stock-parking relationship with Ivan F. Boesky. The hearing revealed that notebooks and ledgers were also used to keep track of similar dealings with junk-bond investment manager David Solomon and Columbia Savings & Loan Assn. These records could convince Wood that illegal parking was a routine service Milken offered to clients, which would reinforce the government's claim that Milken's wrongdoing was systemic.

PARANOIA? Especially graphic was testimony about the period after Nov. 14, 1986, when Boesky pleaded guilty to securities fraud and agreed to cooperate with the government. The defense pointed out that there was no testimony that Milken asked anyone to obstruct justice. But prosecutors presented evidence of a lot of suspicious activities. During a talk with Milken about documents subpoenaed by the government, an employee said Milken told him: "If you don't have them, you can't provide them." Milken then proceeded to open his drawer, which was empty. The defense attributed such activities as mere "paranoia." To a former government prosecutor, they "show consciousness of guilt."

What weight Wood will give to all of this evidence is hard to predict. But if the experts are right, the hearing didn't help Milken—and it might have hurt him a lot.

By Chris Welles and Michele Galen in New York

WHY MILKEN COULD FACE A STIFF SENTENCE

WICKES COMPANIES

▶ The government claimed Milken ordered subordinates to manipulate Wickes stock. A former Drexel trader linked Milken to the manipulation

▶ The defense admitted the manipulation occurred but said Milken didn't order it. Argued the trader was a liar who testified under immunity

POSSIBLE OUTCOME The judge could hold Milken responsible

STORER COMMUNICATIONS

▶ The government alleged Milken bribed money managers with equity warrants at bargain prices to entice them to invest in the Storer LBO

▶ The defense claimed Milken offered them equity at market prices

POSSIBLE OUTCOME The judge could conclude Milken used improper inducements to bolster his network of junk-bond buyers

CAESARS WORLD

▶ The government alleged Milken bought Caesars bonds based on inside information he obtained from a June 29, 1983, meeting with Caesars and Drexel

▶ The defense denied the meeting revealed inside information

POSSIBLE OUTCOME The judge could decide Milken's trading was improper even if it didn't involve inside information

DATA: BW

A 'SURE BET' THAT CRUSHED COLORADO INVESTORS

How Hedged-Investments' strategy cost them millions

In 1986, Warren E. Phifer put $25,000 of his retirement money into a limited partnership managed by Hedged-Investments Associates Inc. Hedged was recommended by a friend who spoke glowingly of consistently high returns as well as the integrity of Hedged President James D. Donahue, an elder at Cherry Creek Presbyterian church in suburban Denver. Soon, Phifer, 69, a retired banker living in Colorado Springs, Colo., had cashed in other investments so he could put a total of $300,000 in Hedged. By this past summer, his investment was worth $400,000.

Phifer discovered at an Aug. 23 meeting in Denver that his nest egg was gone. Before an audience of hundreds, a tearful Donahue admitted in a videotaped message that he had lost "almost all of the total assets of the fund" by investing in United Airlines Inc. options. On Aug. 30, Hedged-Investments filed for Chapter 11 in the U. S. Bankruptcy Court in Denver. The Securities & Exchange Commission and the Colorado Division of Securities are looking into Hedged-Investments, and the Federal Bureau of Investigation is probing possible criminal charges. As for Phifer, he'll have to live on Social Security and what money he didn't put into Hedged-Investments. "We won't be living the lifestyle we had planned on," he says.

BEGUILED. It's little consolation that Phifer is part of an elite group of stunned investors that sounds like a Rocky Mountain Who's Who. They include Charles C. Gates, chairman of Gates Corp.; Thomas S. Kavanagh, founder of NBI Inc.; Ed Sardella, a popular television anchorman on Denver's KUSA; onetime Olympic ski coach and sportscaster Bob Beattie, and former Denver Broncos running back Bobby Anderson. And those are just some of the small fry. Weyerhaeuser Co. invested $35 million worth of pension funds. Union Texas Petroleum Corp.'s pension fund lost $8 million. Total losses may run as high as $267 million. And Hedged-Investments may have less than $2 million in assets left. "Many times, we said: 'Gee, it's such a good return, we should put all our money in it,' " says June Espy, whose husband is a retired Golden (Colo.) businessman. They didn't, but they still lost $840,000.

Most investors were beguiled by what seemed to be a surefire money machine guided by high-powered computers. Donahue declined to be interviewed for this story, and he has provided scant details of what went wrong at Hedged. But documents filed in bankruptcy court and other proceedings together with interviews with investors and former Donahue associates provide a good picture of what happened.

Donahue's early track record was remarkable. Hedged-Investments boasted an impressive eight-year run of annual returns of 23% to 34%, according to document filed by Union Texas. Donahue marshaled three mainframe computers to collect split-second market information on stocks. Using his own formula based on a stock's high and low price he calculated the probability that it would stay in a specified trading range.

Donahue's computers would also zero in on overpriced or underpriced options. Suppose a stock was trading at 50. Donahue's calculations might suggest that the fair value of an option on that stock could be 2, or $200, since each option gives the holder the right to buy 100 shares of stock. But theoretical values and real market prices often diverge, and Donahue was able to sell options for 3. So he could buy the stock, sell the option, and pretty much lock in a decent return. If the stock went up, and the option were exercised, he would still earn $3 per share. And if the stock failed to rise before the option expired, Hedged-Investments would pocket the entire option premium, still own the stock, and sell a new round of options.

On Wall Street, buying stocks and selling call options is considered a conservative strategy. Sometimes, Donahue even took the strategy a step further and sold two or three options for the same 100 shares of stock. Selling so-called naked options is a far more speculative strategy, but by using sophisticated statistical models Donahue seemed to make it work profitably.

FANATIC. Donahue minimized risk by diversifying the portfolio. "There was always the possibility a stock would jump outside the range and cause a loss," says Gregory L. Michol, vice-president at Colorado Capital Advisors, who helped Donahue set up his strategy. "But if he had 20 positions, it's hard to imagine any one being bad enough to wipe out profits on the other 19. He used to preach the discipline of this thing."

Donahue, 56, had the background to make it work. Acquaintances describe him as a low-pressure, likable computer fanatic. Born in Texas, he later graduated from Aurora High School in suburban Denver in 1952 and from the University of Denver in 1959, with a B.S. in business administration. Donahue went on to get a masters degree in mathematical statistics from Stanford University in 1960, and in July of that year started a six-year stint as a statistician and on

DONAHUE'S PROGRAM FOR SUCCESS

THE ANALYSIS Donahue used his vast, computerized data base to identify stock options that were selling at prices much higher or much lower than the historical relationship between the price of the option and the underlying stock. Using probability analysis techniques, he would pick stocks that seemed likely to return to the historical relationship

THE TRADING Donahue used various strategies to capitalize on his analysis. In the most conservative, he would buy the stock and simultaneously sell a call option on the stock. Say he paid $100 for the stock. At the same time, he would sell a call option, giving the purchaser the right to buy the stock for $100 in 90 days. The net result: he spent $100 to buy the stock and collected $5 from selling the call option, leaving him with $95 out of pocket. If the stock went to $100 or higher, he made $5 a share. If the stock dropped to $98, he made $3 a share. He lost money if the stock fell below $95

THE SAFETY NET Diversification was critical. He usually had positions in about 15 to 20 stocks. Thus, any losses would be balanced by gains

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puter-systems analyst at the Martin Marietta Corp. research department in Denver. He later held a number of similar jobs. In 1974, shortly after the Chicago Board Options Exchange opened, he devoted himself to applying statistical theory and computer techniques to stock options, even publishing a reference work, *Option Strategies.* Donahue formed Hedged-Investments in 1977.

As far as anyone can tell, Hedged-Investments' complex options program did not fail. What did happen, though, was that Donahue violated a cardinal rule of investment management when he failed to maintain a diversified portfolio In the videotape, he said he had profited in mid-1989 from his positions in UAL as takeover rumors flew. He later began buying options for the right to buy the stock at $130, believing analysts' reports that UAL was worth from $200 to $240 per share. "Statistically . . . the probability that UAL would go below $130 was very low based on its past two-year performance," Donahue said in the tape.

'GOING DOWN.' Apparently, he didn't anticipate that financing for the UAL takeover would not materialize. Even though a major buyout attempt fell apart in October, 1989, Donahue believed that the deal would be consummated in 1990. But his situation deteriorated even further when the Iraqi invasion in early August caused the market to plummet and UAL stock to drop. After the stock slid below $130, as Donahue explained to investors on the tape, "the options expired worthless."

At first, UAL was only one of many Hedged-Investments positions, but gradually Donahue began "taking funds from other investments and . . . diminished the diversification in the portfolio over a period of eight or nine months," according to the tape. Toward the end, says Harvey Sender, Hedged-Investments' court-appointed bankruptcy trustee, "he knew he was going down. He was like a gambler at the tables in Las Vegas, going for the big killing."

Some investors believe Donahue may have suffered paper losses as far back as the 1987 stock market crash. Only Donahue knows for sure because Hedged was never audited, a fact Donahue freely admitted. "He complained about how dumb the auditors were. . . . Not many CPAs understand hedging," says McNichol. "The tragedy is that Jim is scientific, disciplined, and honest." Investors also wonder whether the fund got too big to maintain the high returns that drew in so many investors. "I said there was a limit. We used to argue about it," says McNichol. "I think ultimately there was a question of how much you could manage under a system like this."

Hedged had become bigger than most people realized. Retired banker Phifer, for one, was shocked to learn that limited partnerships were subdivided into some 1,500 accounts—though many investors had multiple accounts. Among the investors were members of Cherry Creek Presbyterian Church, where Donahue still attends services. In fact, so many parishioners have lost money that the church formed a support group. minister announced that members cou donate to the church benevolence fu to help needy Hedged investors, and has preached about the importance forgiveness.

Few investors are in any mood to fo give. A subdued Donahue, flanked his lawyers, appeared at a creditor me ing in a Denver hotel on Oct. 10. Phif confronted him, saying: "You told r you had learned to never go naked on option" and then asked what had ha pened. But Donahue cited his Fif Amendment rights. In fact, Donah pled the fifth on m questions.

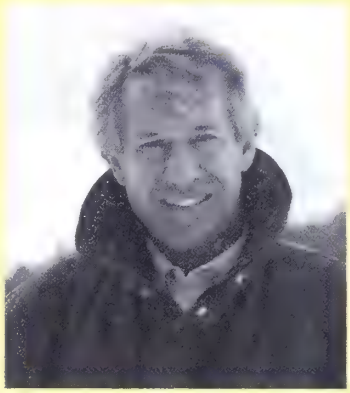
Now, Sender is so ing through the recor to recover assets. So f though, he has turn up only about $700,0 in cash and securit plus a small offi building, along wi Hedged-Investment subsidiary, Aeroturbi a wind-generation co pany that has nev reported a profita year.

Donahue faces a la suit in U. S. Distr Court in Denver fr Weyerhaeuser, whi charges fraud in c nection with the UAL vestment. Union Te Petroleum has join another investor s against Donahue Arapahoe County, o side Denver. Donah also comingled fur belonging to Hedg and to investors alc with his own money i single account at C tral Bank of Denv charges John C. T dennick Jr., an att ney for Union Texas troleum. If that's illegal, he declares, " a breach of fiduciary sponsibility." Donahue's attorney nies that his client did anyth illegal.

Despite such actions, few investors lieve that they'll see their money ag "It's like a death. You have to accept says Phifer. Donahue gave his only c ment on his videotaped message. " words at this point cannot . . . expr the deep sorrow I have over this i dent." Undoubtedly, investors feel same way.

By Sandra D. Atchison in Den

AN ELITE CORPS OF VICTIMS



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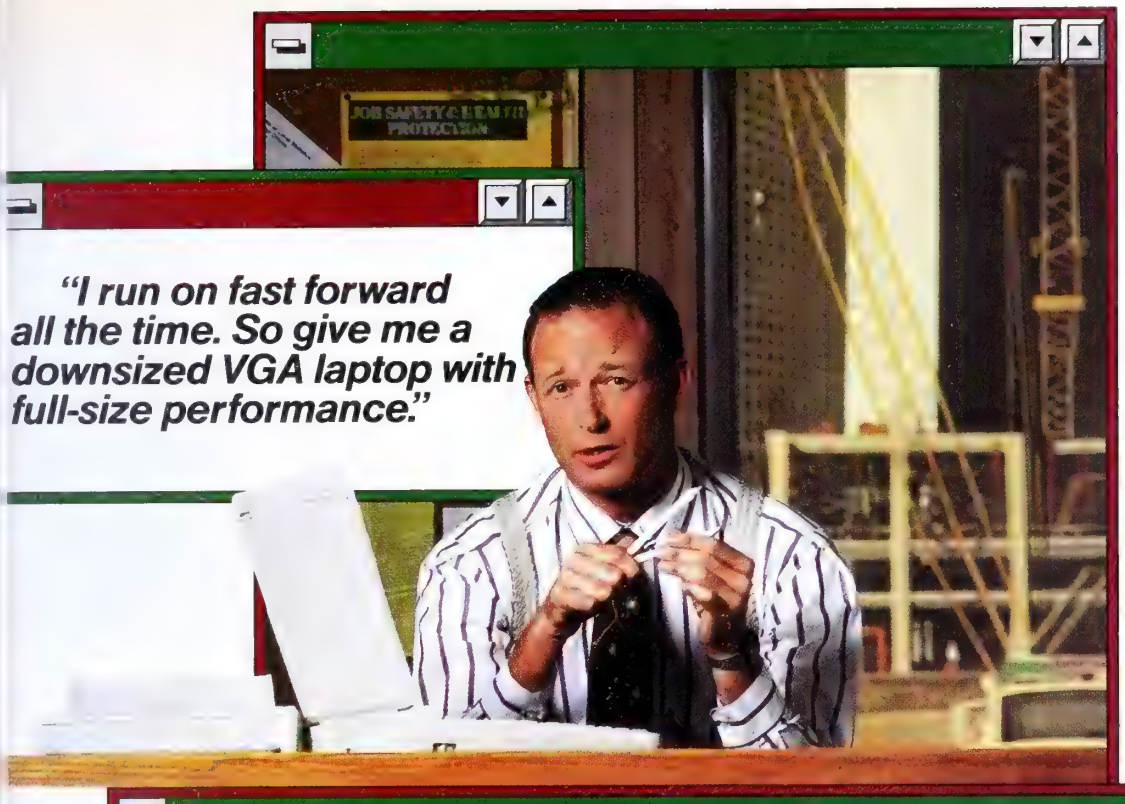

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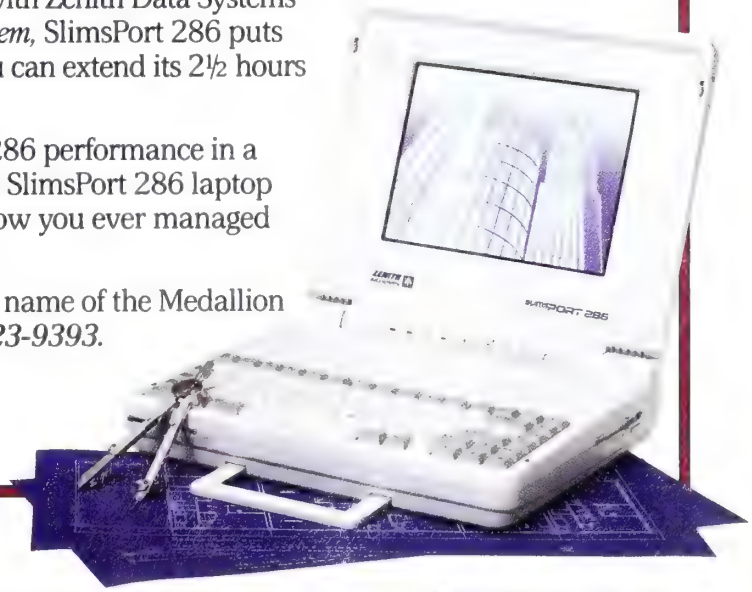

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CORPORATE FINANCE

COMMERCIAL PAPER MAY BE IN FOR SOME SHREDDING

New SEC rules would make it tougher to sell lower-grade IOUs

To the chief financial officers of Corporate America, it must seem as if the credit crunch is being hatched by an inside-the-Beltway conspiracy. Regulators are clamping down on bank lending practices. The Federal Reserve Board, afraid of sending the wrong signal on inflation, is taking only tiny steps toward easing interest rates. And now, corporate borrowers fear that a proposal by the Securities & Exchange Commission that would affect the $563 billion commercial-paper market may squeeze them even further.

Under the SEC plan, money-market funds could not hold more than 5% of their assets in paper rated below top investment grade. Now, they hold 10%, and there's no cap. The proposed curbs on commercial paper—short-term, highly liquid, corporate IOUs—have companies howling that they will be forced to pay a lot more for loans. Those affected include such household names as Philip Morris, Marriott, and Union Carbide (table), which loaded their balance sheets with debt in the 1980s. They would have to depend more on bank financing, which can cost an extra percentage point. Says Glenn Schaeffer, chief financial officer for Circus Circus Enterprises Inc., the Las Vegas gaming concern: "It's mystifying that the SEC would do something that raises the overall cost of capital."

DEEP POCKETS. Spooked over several defaults by commercial-paper issuers, the SEC is out to protect investors in money-market funds from future debacles. That's a reasonable concern, because the funds hold one-third of the outstanding commercial paper. Historically, failures by commercial-paper issuers have been rare. But the recent defaults by Integrated Resources Inc. and Philadelphia-based Mortgage & Realty Trust sent a shiver through the financial community, even though the funds maintained their record of never passing losses along to customers.

The SEC, though, fears that investors won't always be this fortunate. Money funds have an incentive to buy the lower-grade paper: It pays higher rates that beef up their yields. Now, the SEC forbids money funds from investing in the lowest grade commercial paper, rated A3 by Standard & Poor's Corp. and P3 by Moody's Investors Service. The proposed new 5% ceiling on the next highest grade, A2/P2, means they could hold only about $20 billion in this paper. That's about half of what they hold now. The SEC proposals also would stop funds from placing more than 1% of their assets in a single issuer's A2/P2 debt.

With credit ratings sinking across the land, many companies could be pinched. Consider ConAgra Inc., the Omaha-based agricultural concern, which saw its credit rating sink below the top grade of A1 and P1 after it bought Beatrice Co. earlier this year. The money funds hold about 30% of ConAgra's $1 billion of outstanding paper, says L. B. Thomas, vice-president for finance. Replacing that paper with higher-cost bank debt, he estimates, could saddle the company with millions of dollars in extra borrowing costs. "This was not necessary," sniffs Thomas. "Overregulation like this doesn't help."

The funds, however, don't agree. In fact, the SEC curbs are just perfect for erasing the stigma of last year's defaults. Investors have become as comfortable with the safety of money funds which aren't federally backed, as they are with bank deposits, which are. Theoretically, cautious investors could simply read the money funds' semiannual reports and avoid midtier paper. But the industry worries that if even a single investor lost money, "there would be an enormous outflow of funds that could create a liquidity crisis," says fund lawyer Kenneth Gerstein of Gordon, Hurwitz & Butowsky. Only a couple of money funds, preferring the higher A2/P2 yields, oppose the SEC plan.

SHUT OUT? Some companies say the prospect of the rule change is already having an impact. Baxter International Inc. says that in recent months, money-market funds sharply cut their purchases of its paper, from 42% to 7%, in anticipation of the SEC's move. That pushed up Baxter's commercial-paper borrowing costs by 0.1 percentage point. It doesn't sound like much, but this adds up to roughly $1 million a year. Some commercial-paper dealers fret that smaller companies will be shut out of the credit markets—unable to find bank lenders or commercial-paper investors.

Regulators may not be very sympathetic, however. The rule is expected to win approval from the commission early next year. It's a good bet that the SEC will find zapping corporations preferable to even a whiff of investor uneasiness.

By Dean Foust in Washington

CONAGRA'S THOMAS: "OVERREGULATION" HURTS

WHERE THE NEW RULES WILL PINCH

Company Rated P2/A2 or lower	Amount of commercial paper outstanding Billions	Share held by money funds Percent
BAXTER INTERNATIONAL	$1.0	7%
CONAGRA	1.0	30
COOPER INDUSTRIES	1.2	25
FLEETWOOD CREDIT	0.2	20
GREAT WESTERN FINANCIAL	0.5	50
HONEYWELL	0.2	20
MARRIOTT	1.3	NA
MCI	0.9	NA
PACIFICORP FINANCIAL	0.5	33
PHILIP MORRIS *	6.7	NA
UNION CARBIDE	0.3	70

NA = Not available * Split rating DATA: B

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.: HE PAID TOP DOLLAR FOR BANKERS—BUT COULDN'T BRING IN THE BUSINESS

XIT PRU-BACHE, ICKING ITS WOUNDS

grab for M&A action was ill-conceived from the start

1 1986, Chairman George L. Ball hrew Prudential-Bache Securities' iat into the investment banking ring. er mind that the New York-based il brokerage firm was starting al- t from scratch, with little history no clients in the viciously competi- dealmaking arena. These were the ring Eighties, the takeover business exploding, and Ball was eager to 'e himself a piece of it.

ow, Prudential-Bache Securities is idrawing from any meaningful pres- e in investment banking. On Nov. 6, -Bache announced the head of the stment bank was resigning and ma- staff reductions were needed, blam- losses suffered by the unit in 1989 1990. Of 180 investment bankers, ut 120 are being laid off. That will e a core of staff for an investment king boutique to serve such special- clients as financial services compa- . The cutback comes at a time when parent is tightening its grip on its l Street subsidiary. In June, Pruden- Insurance Co. of America installed of its top executives, Arthur H. Bur- Jr., as vice-chairman of Pru-Bache. he cutback in investment banking is lly suprising. Pru-Bache has been l hit by the shrinkage of the mergers acquisitions business (table). In the t three quarters of 1989, deals worth $333 billion were completed, but only $161 billion worth have been done in the same period this year. After making $110 million in 1988, Pru-Bache lost $51 million in 1989 and an estimated $100 million in the first nine months of 1990, largely because of the poor performance of the investment bank. "Frankly, it looks overdue," says William Cavanagh, an insurance company analyst at Standard & Poor's Corp. "They were never able to establish themselves on an ongoing, profitable basis."

It seems clear now that Ball's original strategy was flawed. The idea was to expand Pru-Bache's basic retail brokerage franchise to become a full-service securities firm. Today, even Ball admits—in a recent staff memo—that the investment bank suffered from "its lack of historic client base and the embryonic nature of its franchise."

In 1986, he was singing a different tune. Ball hired a lot of investment bankers all at once, offered them top dollar, and hoped that they would attract blue-chip clients. But Pru-Bache was unsuccessful in brokering large deals and never came close to its goal of breaking into the elite ranks of the top five firms. "You can hire bankers, but you can't buy the business. You have to build it," says one investment analyst, who adds that other firms succeeded by starting small and adding people to match the growth in their business. "It was an ill-conceived strategy, and it was not executed properly. They were spinning their wheels visiting IBM, when they never had a chance of going head-to-head with Goldman Sachs and Morgan Stanley."

CHEERLEADING. The costly mistake is a blow to Ball. He was the one who persuaded Prudential to take the plunge into investment banking. Former employees say that Ball lost some authority when Burton joined the firm as vice-chairman and that Ball's main job now is acting as a cheerleader for the retail sales force. Burton and Ball are both members of the three-man office of the chairman, but Burton oversees the crucial areas of mutual funds, risk arbitrage, and administration. Ball was traveling in Asia and could not be reached for comment, and Burton was unavailable, too. Prudential issued a statement quoting CEO Robert C. Winters as saying: "George Ball has the full support of the Prudential."

In addition to supporting Ball publicly, Prudential has been forced to deny rumors that it is planning to sell Pru-Bache. What's left after investment banking has considerable strengths, including a 7,300-person retail sales force that ranks among the top five retail brokerages. And Prudential is especially fond of the $35 billion in mutual-fund assets these brokers have brought to the firm. "Longer-term, they believe it makes sense for them to be in the retail business," says Perrin Long, an analyst at Lipper Analytical Securities.

On the other hand, Pru-Bache has been a headache for the conservative insurance company. The subsidiary has already embarrassed its parent with lawsuits stemming from limited partnerships it marketed for VMS Realty Partners and others. The full liability is still unknown. Says one Pru-Bache employee: "The frustration is that it is not a bad firm." The hope is that without a sinking investment bank, the firm can be good again.

By Leah Nathans Spiro in New York

THE PUSH THAT FAILED

	Industry ranking	Dollar value of completed Pru-Bache deals* Billions
1990**	42	$1.0
1989	24	9.7
1988	20	5.4

*Includes mergers, spin-offs, restructurings
**Through September 30, 1990
DATA: SECURITIES DATA CORP

MARKETS & INVESTMENTS

CAN SAM WALTON'S DAUGHTER MAKE IT BIG ON HER OWN?

Rivals claim her new investment firm, Llama, has an advantage

No one can accuse Alice L. Walton of being fainthearted. Shifting uncomfortably in her neck brace, the daughter of Wal-Mart Stores Inc.'s billionaire founder Sam Walton explains that she injured her back recently by jumping from a 40-foot bluff into a lake. Says one friend: "She has more daring than is good for her."

The same might be said of her plunge into investment banking. With Llama Co., founded two years ago in Fayetteville, Ark., Walton is trying to become a financial force beyond her home state. But Llama hasn't done any big deals yet. And while well-established rivals fear she will exploit her family connections to get business, they don't seem to have much cause for alarm now.

Llama's staff totals only 40 people, including a mere eight in sales. The firm lost $1.3 million last year on $810,000 in revenues. Walton says Llama will show a profit this year—but declines to say how much—on $4 million in revenues.

What intimidates Llama's rivals in Arkansas is the fledgling company's potential financial clout. With some $30.4 million in assets and $21 million in net capital, Llama ranks second in the state to longtime Little Rock power Stephens Inc., which has assets of $493 million. And competitors glumly realize that Sam Walton could certainly sweeten the pot.

OPENING DOORS. Some of Alice Walton's rivals charge that Llama is heavy-handed in using the family's political and economic clout, especially to win public finance contracts. One competitor says the company implies to potential clients that the family or Wal-Mart will reward them for hiring Llama. "It makes it a little tough to compete," says another. Walton, 41, denies any such promises. Her famous surname, she insists, "doesn't get you the business. It just opens the door."

But often, that's enough. Llama was recently selected to be the sole senior manager of a $33 million bond issue for Fayetteville. Rivals grumble that Llama sold fewer than a third of the bonds and paid other firms less than the usual concession for their help.

Fayetteville City Manager Scott C. Linebaugh acknowledges that more established firms usually have the edge in winning such business. But he says Llama proposed better terms than the other firms, including Stephens and Merrill Lynch & Co. "It's true [the Waltons] have done a lot for the area," Linebaugh says, "but we didn't feel any pressure at all" to choose Llama.

Alice insists that being a Walton 'doesn't get you the business. It just opens the door'

Alice Walton clashed with the Securities & Exchange Commission in 1979 and was suspended from associating with any broker for six months. She allegedly violated securities laws while working as a broker at E. F. Hutton & Co. in New Orleans. Walton denied the charges but accepted the settlement to avoid protracted litigation. Says Walton: "A mark on your record when you've been in this business for 20 years doesn't have anything to do with morals or ethics—quality."

So far, most of Llama's business has involved government and student-loan revenue bonds across the country. Walton now wants to get more corporate finance deals, including debt and equity offerings. She is looking for projects that will create jobs in the economically depressed region or offer environmental benefits. But to date, the company has completed only a grocery-chain sale, which Llama represented the Waltons.

Some of Llama's higher-risk ventures have yet to pay off. Its attempts to finance a $180 million Oklahoma linerboard mill have been thwarted when a potential investor was gobbled up in a hostile takeover.

STUBBORN. Llama also is trying to put up money for a $30 million dairy operation in northern Florida. And it owns 50% of Winkelman Battery Co. in Springdale, Ark., which hopes to buy and operate plants abroad.

Walton has long impressed people with her fierce determination. While vacationing in Mexico in 1983, the Jeep she was driving rolled over a cliff. Doctors in Arkansas advised amputation of one leg to save her life, but Walton refused. "A person less tough than she probably wouldn't have made it," notes a competitor.

That kind of determination prompts her friends to say that Alice resembles her strong-willed father. But she does not share his love of retailing. After studying business at Trinity University in Texas, she worked only a year as a Wal-Mart buyer. Walton then joined First National Bank of Commerce in New Orleans and later joined E. F. Hutton. Two marriages later, she returned home to Arkansas to manage the family's money and the investment operations for some Walton-controlled banks.

Walton, who owns 55% of Llama, found the inspiration for the company's name two years ago when a good friend mentioned that he was going to a llama auction. She expressed a slight interest in the animal, and to her amazement, a llama was delivered to her door—complete with a $4,000 bill. "I was just furious," Walton says. She kept the animal anyway and named him LaRoy. Now, if Llama is to thrive in investment banking, Alice Walton will be known as more than just Sam Walton's daughter.

By Wendy Zellner in Fayetteville, Ark.

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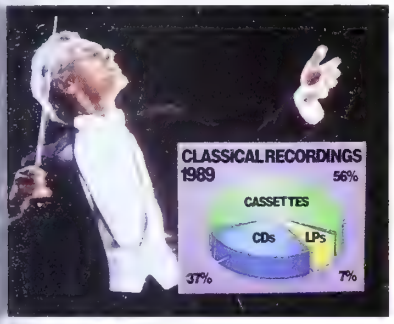

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BY GARY WEISS

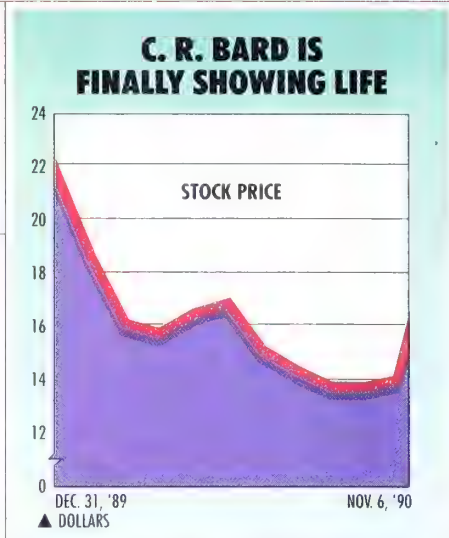
DESPITE A TOUGH BLOW, BARD IS UP AND SWINGING

For biotechnology companies, a frown from the Food & Drug Administration can produce the corporate equivalent of angina pectoris. So it was with C. R. Bard, a leading manufacturer of angiopathy catheters—devices that doctors guide into blood vessels to treat cardiovascular ailments. Bard shares have been in the doldrums for much of this year (chart), ever since it had to recall two of its catheter lines after discovering that product modifications had been made by company personnel without FDA approval.

But shareholders appear to have overreacted—and the share-price calamity is attracting value investors. After all, the "company has lost just 15% of its business, and the remaining 85% is from a strong franchise in urology and disposable devices," notes Andy Offit, the manager of Fidelity's Select-Health Care mutual fund. Although sales of cardiovascular products were down 13% during the first nine months of 1990, double-digit gains in sales of urological and surgical devices more than offset that decline. In the third quarter, Bard's earnings rose to 20¢ a share from 18¢ a year ago. Not bad for a company that has sustained a major blow to one of its biggest product lines.

'MAJOR IMPACT.' One potentially momentous source of growth is an implant derived from cow tissue that is designed to combat urinary incontinence. Bard is marketing the implant, which is manufactured by Collagen Corp., and Offit estimates that the product has a potential market in the billions. "Bard only has to take 10% or 20% of that to have a major impact" on the company's bottom line, he says. The implant was approved by an FDA panel earlier this month, but the action had little impact on share prices.

The company is also striving to regain its domestic angiopathy franchise. Bard is seeking FDA approval of its New Probe, Sprint, and Solo lines of catheters. "It's just a matter of the company working through its problems," says Offit. If that happens, he estimates that Bard's earnings may rise from 80¢ a share this year to as high as $1.60 in 1992. At a price-earnings multiple of 15—and Bard's p-e is often higher—the stock could hit 24.



Offit's fund is among the buyers taking advantage of the issue's recent weakness. On Nov. 6, Bard rose from 15¼ to 16¼ on heavy trading after a Donaldson, Lufkin & Jenrette Securities analyst issued a buy recommendation. Even with that spurt, Bard is far from pricey: The Big Board-traded issue is still selling at only about one times sales per share. That's the kind of number that warms the hearts of value investors.

A SLEEPING BEAUTY WITH A SUITOR

Off Wall Street Consulting Group is the quaint moniker of a Cambridge (Mass.) research boutique. It keeps an eye peeled for opportunities in equity and debt, both long and short. Among the firm's more notable sell recommendations was its May thumbs-down on TCBY Enterprises, the frozen-yogurt chain, which has fallen more than 70% since then. On the buy side, the Off Wall Street folks have lately been singing the praises of Harsco, a little-known company in Camp Hill, Pa.

Harsco makes a variety of products that require the fabrication and processing of metals, from doors and grills to scaffolding and military vehicles for the Pentagon. In 1989, the company's money-losing defense contracts helped knock down earnings by over 60%. But profits have recovered smartly, and this year, earnings are expected to rise to a record $2.60 a share—six times last year's paltry 43¢.

Mark Roberts, Off Wall Street's research director, is high on Harsco for several reasons besides earnings potential. It boasts an attractive yield of % and there's also the possibility o buyout by Carlyle Group, which hol over 8% of the company's shares. April, Harsco rejected a restructuri proposal from Carlyle, which cou Frank Carlucci, the former Defe Secretary, among its principals. "C lucci is a savvy guy," says Robe "He's clearly interested in taking o the company." Roberts thinks Harsc breakup value could easily be m than twice its recent price of $1 share.

HOSPITAL MANAGER ON THE MEND

During the 1980s, Republi Health, a Dallas-based hospi management company, w public, then private via a leverag buyout, then bust—all in the span half a decade. In December, 1989, public filed for Chapter 11 in a "p packaged" bankruptcy—that is, company lined up creditor support fore filing. When Republic emer from bankruptcy last May under leadership of turnaround ace Br Marsal, bondholders exchanged th securities for cash and equity—2 shares of common stock per bond, e worth $8 a share.

But alas, Republic is still be snubbed on the Street. In the months since then, its NASDAQ-tra stock has plummeted to 5 despite g erally upbeat financials. In the quar that ended Aug. 31—the first sinc emerged from bankruptcy—Repu reported earnings of $1.4 million, 24¢ a share, vs. a loss of $24 million year before. But investors have tur up their noses anyway. "There been absolutely no buying interest, liquidity. Every time someone want sell, it knocks down the price," s James Rubin, a general partner M. D. Sass Re/Enterprise Partners major holder of Republic debt that r owns about 12% of the shares.

According to Rubin's numb crunching, slimmed-down Republ just 13 hospitals now, from 23 1988—is worth $14 to $20 a share. company is generating significant c flow from its facilities, says Ru who also thinks Republic's assets r undervalued. If his math is prove the market, the company may fin get a clean bill of health.

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DOING UNTO COMPAQ AS IT DID UNTO IBM?

Rivals are seeking ways to exploit the PC maker's weaknesses

Compaq Chief Executive Joseph R. Canion must long for the good old days when his company got to play David to IBM's Goliath. Big Blue couldn't make a portable personal computer; Compaq's was a smash. IBM took years to bring out models incorporating the latest technology; Compaq was the first to sell PCs with the newest, most powerful microchips. IBM alienated computer dealers by selling directly to big corporations at deep discounts; Compaq sold exclusively through dealers, making them more profitable and intensely loyal. It seemed that Compaq couldn't fail—as long as it exploited IBM's weaknesses.

Those were the days. Lately, Compaq Computer Corp. has become the target—for IBM and for the swarms of PC clonemakers trying to do to Compaq what Compaq has done to IBM. As they hustle for a share of the $68 billion worldwide PC market, they're finding that the Houston-based company has weaknesses they can exploit. Compaq's list prices are relatively high. Its machines aren't always the first with the latest technology. And its single-minded dedication to selling through dealers makes it harder for customers to get the after-sale services they want.

TURNING THE TABLES. To be sure, nobody has laid a glove on Compaq yet. For the first nine months of 1990, its revenues jumped by 24% to $2.6 billion, fueled by a blazing 50% surge in overseas sales. The company is expected to finish 1990 with $3.5 billion in revenues.

But in North America, revenue is up just 3.6%—and the clones are gaining. Austin-based Dell Computer Corp., which has been running ads mocking Compaq's high prices as "lunacy," claims it is growing at its Houston neighbor's expense. AST Research Inc. has revived by aiming its PCs squarely at Compaq's. And IBM, which has cleaned up many of the problems that created opportunities for Compaq, is turning the tables: When it introduced computers based on Intel Corp.'s 80486 chip in late October, it boasted that its machines are faster and cheaper than Compaq's. Public comparisons aren't IBM's traditional style—but "they started it," says James A. Cannavino, the vice-president in charge of IBM's PC unit.

Meanwhile, Compaq's unit share of the U. S. PC market has remained nearly flat at around 4%, while challengers such as AST, Dell, and Packard Bell have shown solid growth. Packard Bell's market share alone grew from less than 1% in 1988 to nearly 4% in 1989 (page 137). And IBM, the company that Compaq originally set out to dethrone in PCs, has bounced back smartly (table).

Compaq's biggest weakness may be its pricing. The company began life by charging IBM prices for machines that had more features than IBM's. Once it established a high-quality reputation, it began charging more than IBM. To keep that up, however, Compaq has had to maintain a big technological lead over IBM and the clonemakers. "You can

charge a premium if you build the b machines," says Michael S. Swav president of Compaq North America

Lately, that's been harder to do. W Compaq brought out the first PC to Intel's 80386 microchip in 1986, it had market nearly to itself for months. by 1988, when it was the first to use 80386SX chip, clonemakers quickly b similar machines. Recently, both IBM Hewlett-Packard Co. beat Compaq market with products using the 80

COMPAQ'S HISTORY OF FIRSTS

But keeping ahead is getting harder

1982

FEBRUARY Compaq founded

NOVEMBER Introduces Compaq portable—a smash hit

1983

DECEMBER Went public; offering, at 11 per share, raises $61 million. First-year sales of $111 million set a record for a startup's initial 12 months

1984

FEBRUARY IBM introduces portable PC—a flop

JUNE Compaq introduces its first desktop PC

AUGUST IBM introduces PC/AT, using Intel 80286

1985

APRIL Compaq introduces Deskpro 286

1986

JUNE Toshiba introduces a 286-based laptop

SEPTEMBER Compaq introduces the industry's first 80386-based PC, seven months before IBM

1987

APRIL IBM announces Microchannel PC d and threatens to su Compaq and other copy it

DECEMBER Sales h billion—passing $ in record time for a company. Compaq PCs outsell IBM's 3

p. And IBM and AST, among others, ve pioneered a new design that makes easy for customers to upgrade their chines with new microchips, rather n having to trade up every few years they do with Compaq.

As the U. S. tilts into recession, PC es growth is slowing dramatically—to s than 5% this year. And big business- that gladly paid extra for the Compaq rque are beginning to rebel. "They're ced as the Cadillac of the industry, but the competitors are just as good," says David L. Streit, PC manager for Deloitte Touche's downtown Manhattan office. Joseph F. Anastasio, corporate PC manager for Warnaco Inc., a clothing maker in Bridgeport, Conn., periodically compares Compaqs with the Dell PCs he buys. Compaqs are "good machines, but no better than Dells," he says. "And I would have to pay 35% more."

Compaq—which has confounded all previous predictions of its inevitable fall—sees no big change. And a recession, Swavely figures, may actually help. "If we go into a downturn, a lot of clone-makers will go out of business," he says.

Still, Compaq has become far more aggressive on pricing, cutting tags twice this fall—by 25% on some models. "We're perceived as being too high-priced, and we're working on that," says Swavely, Compaq's key marketing executive (page 132). Now, Compaq's bread-and-butter office PCs carry only a 12% premium over clones. And some models are actually selling for 10% less than comparable IBM PS/2s. That should help prop up sales, but it will hurt Compaq margins, which recently rose to nearly 44% from 40% last year. In 1991, says First Boston Corp. analyst Charles R. Wolf, earnings will grow only 5%, even as sales expand 18%, to $4.26 billion.

To ward off anything worse, Compaq needs to make its Systempro line of machines a success. With the power and storage capacity of minicomputers, they're network "servers"—machines that hold information for dozens of PCs. They are key to Compaq's big-picture plan to move up the computer food chain, away from the cutthroat commodity PC business. "The high end is Compaq territory," says CEO Canion. Eventually, he says, Systempro will replace mainframes—a claim that IBM's Cannavino calls "arrogant."

WEAK SUPPORT. Systempro has met with mixed success so far. Market researcher Storeboard/Computer Intelligence says that Compaq sold some 5,500 units in the U. S. through August, and Compaq claims that it will sell 10,000 Systempros worldwide by yearend. Analysts say that the company hoped to sell at least 15,000. Now, IBM is gunning for Systempro with its own 80486 server that sells for 35% less than the $22,000 Systempro.

More difficult to fix than the price is the way it's sold. Customers say that most computer dealers lack the expertise to handle the complex Systempro. Worse, if these setups replace minicomputers and mainframes, they must be

1988

...SX machine

OCTOBER Compaq announces its first laptop using 286 chip

BER With eight ...mpanies, Compaq ...es Extended ... Standard ...ture to compete ...'s Microchannel

R NEC introduces ...book

1989

FEBRUARY Compaq stuns Businessland by withdrawing its PCs after chain supports IBM's Microchannel push and demands higher margins from Compaq

MAY IBM introduces 386SX PS/2 machine

JUNE IBM introduces 80486 PC product

OCTOBER Compaq announces its first notebook-size PC

OCTOBER Hewlett-Packard introduces 80486 PC

NOVEMBER Compaq announces 80486-based PC and the Systempro

1990

MARCH Rejoins Businessland chain

OCTOBER Compaq announces notebook computer with 386SX chip. Texas Instruments and Epson announce similar machines. AST announces low-cost 80486 PC. IBM announces 486 server

NOVEMBER Samsung introduces 80386SX-based notebook PC. NEC and Toshiba are expected to follow

sold to corporate computer managers, who aren't used to buying from dealers. Alan J. Soucy, a manager at Martin Marietta Corp., oversees some 24,000 desktops. He bought a couple of Systempros, but he's holding back because of price and because "the support is too inconsistent." Dealers "don't have the engineering skills," he says. "We can't afford to rely on them."

Compaq insists that the dealers can do Systempro justice. "People's perceptions are not in line with reality," Canion says of his dealers. Just to be sure, though, Compaq is plowing $12 million into upgrading their skills. But the downturn in PC sales has left many dealers hard pressed. For example, after a $20 million quarterly loss, Businessland Inc. announced a 20% layoff on Nov. 5.

Ever so quietly, Compaq has started to expand beyond dealers. It recently signed agreements with several computer consulting firms to help sell Systempro and is in negotiati with Andersen Consult It has also contracted v software developers, inc ing Microsoft Corp., for tomer support.

While Compaq tries to tablish Systempro, it c afford to let up in other eas—especially the f moving laptop market. though it entered market late, its first lap in 1988 set the standard screen quality and po Last year, Compaq ac hot-selling, notebook- machines. Now, laptops are Comp fastest-growing business, accounting 27% of sales. But rivals such as Tos Corp. and NEC Corp. have qui matched, and even surpassed, the C paq notebooks. Compaq cut prices

NEW NOTEBOOKS ARE HITS...

	Sales by product line Q3 1989	Q3 1990
80386-BASED DESKTOPS*	52%	60%
NOTEBOOKS	—	19
80286-BASED DESKTOPS	22	10
LAPTOPS	15	8
PORTABLES	11	3
SYSTEMPRO	—	(less than 1%)

* Includes 80386SX sales

...BUT PC MARKET SHARE IS FLAT

	U.S. shipments 1987	1988	1989
IBM	15.0%	9.1%	14.0%
APPLE	14.9	13.3	10.7
TANDY	7.1	5.6	4.8
COMPAQ	3.8	3.6	3.8
PACKARD BELL	0.0	1.7	3.7
EPSON	2.3	2.2	2.7
NEC	1.3	1.6	1.9
AST	0.9	1.3	1.9

DATA: KIDDER, PEABODY & CO.; AUDITS & SURVEYS INC., DATAQUEST INC.

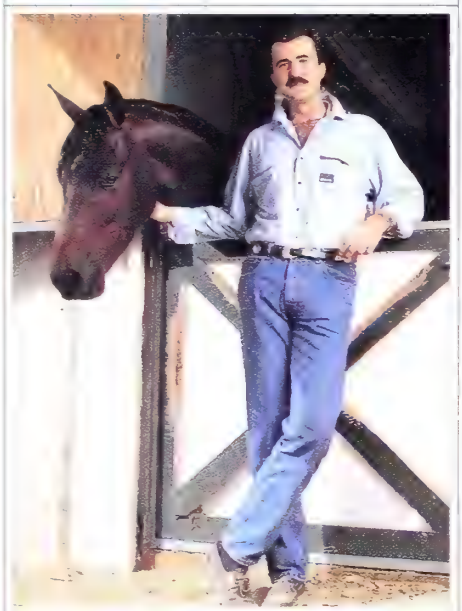
TO BE YOUNG, GIFTED, AND NO. 2 AT COMPAQ

It's 8 a.m. at Washington's lavish Hay-Adams Hotel, and guests are streaming off to breakfast or meetings. Michael S. Swavely already has been up for two hours. In town to meet with dealers and promote Compaq Computer Corp.'s latest laptop PC, he has breakfasted, been to a staff meeting, and taped a TV interview. Next will be a two-hour session with customers in Reston, Va. After that, more interviews. At 5 p.m., he flies to Boston, where he starts over again.

A not untypical day for Swavely, Compaq's high-profile No. 2. CEO Joseph R. Canion has been passing responsibility for much of Compaq's daily operations and future strategy to Swavely. Since joining Compaq in 1982, Swavely has shown a knack for shrewd marketing and solid strategic thinking. "He's bright and he's tough," says a former executive, "and he doesn't let much get in his way."

Now 37, Swavely has risen fast. An army brat, he grew up in Southern California and Virginia. He began his career in marketing at Chrysler Corp. and moved to Texas Instruments Inc., where he worked for Canion. When Compaq needed a director of product marketing, Canion hired him.

Once there, he helped establish Compaq's critical strategy of selling solely through computer dealers, rather than splitting sales with a direct sales force as IBM and others were doing. His biggest contribution came in 1984, when Compaq launched its first desktop. As one of three executives heading the desktop team, Swavely helped develop and introduce the Deskpro in just six months. The machine helped Compaq move beyond its niche in portable PCs to become IBM's toughest rival in PC-compatibles. "He led the charge," says Kevin Ellington, another executive on the desktop team.



SWAVELY: A "PRETTY SIMPLE" LIFESTYLE

The charge has not let up. Whether it's pitching new products to dealers, chatting up Wall Street analysts, or handling internal disputes, Swavely keeps his cool. He smokes heavily but seldom drinks. He rarely wears a thing but dark suits and red ties. trips, he flies coach and often eats fast-food restaurants. Once, when colleague ordered a limousine to h them across Manhattan, Swavely monished him for "creating the wro image."

CRUSHED TOES. For all his fervor the job, Swavely is laid-back af hours. Unlike Canion, who makes Houston social scene, Swavely sti close to home—a 54-acre ranch wh he and his second wife, Barbara, ra thoroughbreds. Swavely's salary a bonus add up to around $2 millio about the same as Apple Compu Inc. Chairman John Sculley make and he enjoys his rewards, includin tennis court and a Porsche 928. Still, insists, it's a modest life compared w what goes on in Silicon Valley. " not like Sculley's spread," he sa "It's pretty simple."

Of course, Swavely didn't get wh he is without stepping on some t Underlings say he rarely changes mind once he makes a decision, and has been known to stomp on ideas doesn't like. "He can come off as p ty arrogant," says a former execut

But Swavely's track record rema untarnished. And he knows what wants: When headhunters tapped for jobs at Tandy Corp. and Apple, says he wasn't interested. His sig after all, are firmly focused on top—of Compaq.

By Mark Ivey in Hous

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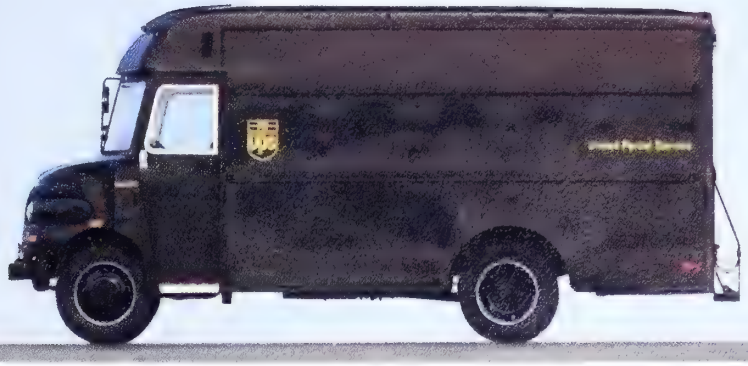

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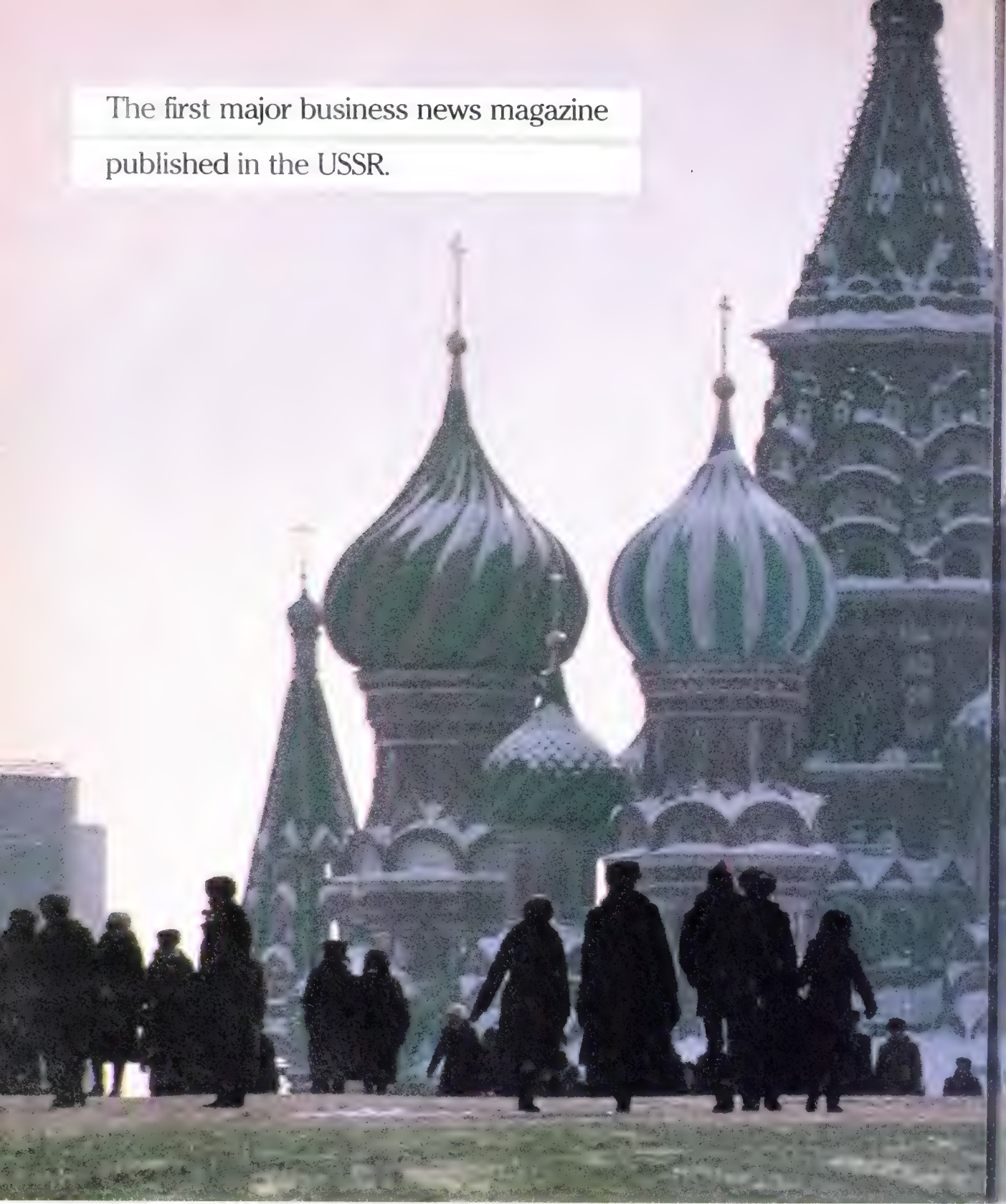

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Technology that works fo

on some notebooks, after its share aptop sales had slipped to 54%, from last year, says Storeboard.

f anything, the competition is grow- more intense. In October, Compaq ıe out with notebook PCs built around Intel 80386SX chip with sophisticated phics and massive storage capacity.

Epson and Texas Instruments Inc. e already announced a similar ma- ıe, as has Korea's Samsung Informa- Systems Inc. Others will follow lat- this month. While they may not licate all of the features of the 7- nd LTE 386S, they will undoubted- ly undercut Compaq's $7,000 price tag.

So far, strong European sales have made up for any domestic woes. Compaq's $1.3 billion in 1989 European sales won it 14% of the market, second only to IBM, says market researcher Inteco Corp. But Europe is slowing: Inteco says annual growth will be 18%, down from 32% in 1989. And Compaq is behind in Asia, where it is just now laying the groundwork for a move into Japan. That probably won't happen before 1992.

Compaq has other expansion plans. Insiders say it may start selling printers and other peripherals by next spring, and it is working on multimedia technology that would incorporate voice, data, and graphics. Also on the drawing board are machines built around reduced instruction-set computing (RISC) processors, taking Compaq further upmarket.

The RISC market is a hot one—but it's already crowded with old rivals such as IBM and new ones such as Sun Microsystems Inc. It's a much more complex world than the David-and-Goliath one Compaq grew up in.

By Mark Ivey in Houston, with Barbara Buell in San Francisco, Jonathan B. Levine in Paris, and Neil Gross in Tokyo

WHAT'S IN A CLONE: PRICE, TECHNOLOGY, SERVICE . . .

uring the past 15 months, the Houston Police Dept. has spent about $500,000 on hundreds of rsonal computers for its narcotics di- ion. Only a few came from home- wn PC maker Compaq Computer rp. The police spent most of their dget on computers from AST Re- arch Inc. in Irvine, Calif. "Prior to s, we bought a lot of Compaqs," ys Officer Thomas Edwards, who ıanages the confiscated drug money at pays for the PCs. But AST PCs, it ns out, cost up to 38% less. "We ught [AST] to save a dollar."

With a recession looming, the Hous- ı police aren't the only Compaq cus- ners shopping for bargains. They're ying machines from companies such AST, Dell Computer, Packard Bell, d others. The trend 't about to top- Compaq. But it enough to keep a on its share of e U.S. PC market ıile the clone- ıkers grow.

Why now? After all, ese same rivals have en aiming at Com- q for years without ıch success. Part of e answer is changing ıes. Buyers who used shun low-priced PC ockoffs are now fa- liar enough with how s work to try them.

MPING UP. More im- rtant, the clone- ıkers have also im- oved their wares. ke AST. Launched 10 ars ago as a maker add-on memory ards for IBM PCs, AST didn't begin selling PCs until 1986. It didn't do well: In its fiscal year ended June 30, 1989, it lost $7.5 million. Then it got aggressive with new technology and built PCs based on Intel's 80386SX and 80486 chips—the heart of Compaq's line. This year, AST profits were $35 million on sales of $533 million.

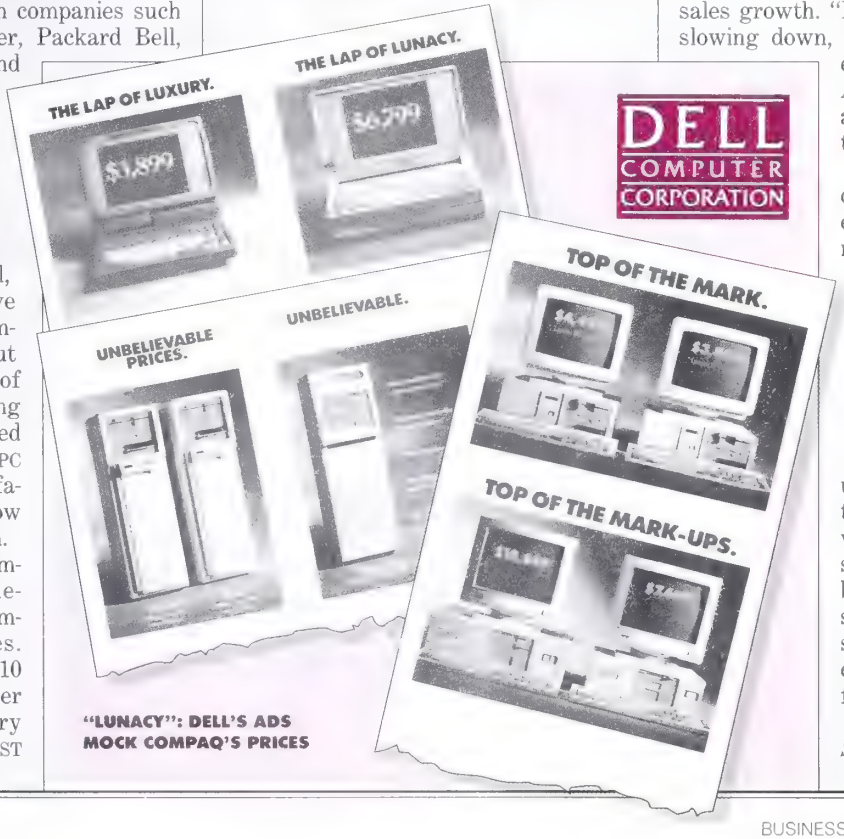
But technology alone isn't enough to catch Compaq; clever distribution is critical. While Compaq relies on retail computer dealers to sell its PCs, companies such as Packard Bell have built big businesses moving PCs through mass merchandisers. Some clonemakers, such as Dell Computer Corp., sell computers by phone. Others have latched onto computer superstores—gigantic outlets where prices are cut to the bone. Then there are those who ally with specialized dealers, sometimes called value-added resellers, that design a system from top to bottom.

And the clonemakers are also working on beefing up customer service. Free telephone support is common. Dell even offers free on-site service. Indeed, in a recent study by market researcher Dataquest Inc., clonemakers grabbed four of the top six spots in customer satisfaction. Compaq didn't make the list.

'LESS SPACE.' But the clonemakers are miles from easy street. Those that have only low prices to offer could have trouble surviving a slump in PC sales growth. "Now that the market is slowing down, there is less space for everyone," says Bruce A. Stephen, PC analyst at researcher International Data Corp.

Relative to the clones, Compaq is on excellent footing. But it may have to fight hard for U.S. sales gains. It has moved closer to the clones in pricing, but it may have to go farther to win back customers such as the Houston police. They already use some Compaq laptops, but Officer Edwards says they're now shopping for their next big purchase: notebook-size computers for squad cars. Compaq is on the list. But so are four clone companies.

By Barbara Buell in San Francisco



"LUNACY": DELL'S ADS MOCK COMPAQ'S PRICES

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A Clear Signal Of What's Ahead.

EVERY SILVER LINING HA

THIRD-QUARTER PROFITS JUMPED BY 7%, BUT SOME INDUSTRIES STUMBLED BA

Such is the state of the economy that even good news comes draped in black crepe these days. Any other time, the third quarter's 7% rise in corporate profits would have been cause for celebration—especially after four quarters of declining profits. But this time, the numbers only look good compared with the disastrous third quarter of 1989. And another gain in quarterly earnings could be some time coming.

As they did a year earlier, the East Coast banks lost money in the third quarter. But this time, the loss was only $276.7 million, compared with a staggering $5.5 billion in the 1989 quarter, when banks took massive write-downs against expected losses on Third World debt. If all banks were excluded from both the 1989 and 1990 quarters, earnings would have declined by 6%.

Helping to boost earnings in the latest quarter were higher energy prices, which swelled inventory profits at the oil companies, and a weaker dollar, which inflated earnings from overseas. Revenues grew by 9% in the third quarter for the 900 companies in the BUSINESS WEEK Scoreboard, nearly twice the 5% rate in the second quarter.

The sudden jump in oil prices to more than $30 a barrel following Iraq's invasion of Kuwait in August did not prevent the economy from expanding in the third quarter. Gross national product grew by a surprising annual rate of 1.8% as consumer spending remained fairly strong. But as winter approaches and the Mideast standoff continues, consumers are likely to limit their discretionary spending. "The consumer is going back into his shell until energy prices come down," says Stephen S. Roach, senior economist at Morgan Stanley & Co.

DRY SPELL. Assuming oil prices remain at current levels, analysts expect corporate profits to decline for the next three quarters and begin rising again in the third quarter of 1991. Abby Joseph Cohen, market strategist at Goldman, Sachs & Co., estimates that earnings for the Standard & Poor's 500 will decline by 3.8%, to $22 a share this year, and will remain flat in 1991. Cohen's 1990 projection compares with a 6.8% gain in corporate profits that is the consensus of market strategists surveyed by the Institutional Brokers Estimate System.

The price of oil during the coming months will have a big impact on corporate profits in the fourth quarter and in 1991. War in the Persian Gulf would push oil prices up to $60 a barrel and drive corporate profits down 20%, according to DRI/McGraw-Hill. "Oil companies would do extremely well," says Alan Siqueira, a DRI economist. "But the U.S. would lose most of its ex growth because war would cause an e nomic slowdown in the rest of t world."

Some analysts say a mild reces would not have a devastating impac corporate profits because most companies have

WINNERS AND LOSE

THE INDUSTRIES

THE SHARPEST GAINS	Percent change from 1989's third quarter	THE DEEPEST DI	Percent cha 1989's thi
FOOD PROCESSING	149%	CARS & TRUCKS	
TRANSPORTATION SERVICES	145	TEXTILES	
TOBACCO	96	TIRE & RUBBER	
ENTERTAINMENT	95	AIRLINES	
AEROSPACE	84	TRUCKING & SHIPPING	
MACHINE & HAND TOOLS	69	OTHER LEISURE	
COMPUTERS & PERIPHERALS	38	SEMICONDUCTORS	
HEALTH CARE SERVICES	36	PAPER CONTAINERS	
DRUGS & RESEARCH	32	BANKS–SOUTH & SOUTHE	
BROADCASTING	28	FOREST PRODUCTS	
NONFERROUS METALS	27	INSURANCE	
POLLUTION CONTROL	26	HOTEL & MOTEL	
OIL & GAS	25	STEEL	
PETROLEUM SERVICES	24	APPLIANCES	
COAL	24	CONSTRUCTION & REAL ES	

ALL-INDUSTRY AVERAGE: +7%

CLOUD

NEARLY EVERYONE IS BRACING FOR RECESSION

pared for tough times. The ratio of l nonfarm inventories to sales is ut 20.5%, the lowest since the late 0s, notes Mark M. Zandi of Regional ancial Associates in West Chester, Since January, 1989, U. S. manufac- ers have trimmed their payrolls by ,000 employees, according to the La- Dept. "The preemptive cost-cutting in anticipation of a recession will limit the downside to corporate earnings," says Roach of Morgan Stanley.

In the third quarter, General Motors Corp. took a major step toward reducing its overhead with a $2.1 billion aftertax charge to cover the cost of closing factories and warehouses over the next three years. GM's third-quarter loss of nearly $2 billion was the highest for any company during the quarter. Including a $214 million loss at Chrysler Corp., the cars and trucks group lost $2.07 billion, the most of any industry group. The tire and rubber group also posted a loss for the quarter of $12.1 million. If the results of the auto companies had been subtracted from the BW Scoreboard in both the 1990 and 1989 third quarters, profits would have increased by 17.4%.

Although East Coast banks did not take the kinds of write-downs they did in the 1989 third quarter, the sector turned in the biggest loss after the cars and trucks group. Among the banks, Chase Manhattan Corp. reported the largest loss, $623 million, after taking charges totaling $350 million to exit some unprofitable businesses and to reduce its work force by 5,000.

Other sectors that took a beating in the third quarter include textiles, which reported a $25 million loss, and airlines, which showed a 99% drop in profits.

CORNUCOPIA. Despite the fanfare accompanying price hikes at the gas pump, the oil and gas group did not report the biggest profit gain in the third quarter. That distinction was held by the food-processing sector, which bagged a 149% earnings increase. However, the group's huge increase reflects a $570 million write-off that Borden Inc. took in last year's third quarter, says William Leach, an analyst with Donaldson, Lufkin & Jenrette Securities Corp. Leach says the food processors reported an average increase in third-quarter earnings of about 16%.

The transportation-services group was another big winner, with a 145% increase. Other strong performers included tobacco, up 96%; entertainment, ahead 95%; and aerospace, up 84%. IBM's 27% earnings increase helped push the computers-and-peripherals group ahead 38%.

Rising energy prices helped lift oil and gas earnings, which increased by 25%, as well as those of the petroleum-services and coal groups, both up 24%. Amerada Hess Corp.'s bet on energy futures paid off with a 440% gain in profits. By holding the line on price increases, Arco expanded its market share

D-QUARTER PROFITS

THE COMPANIES

MADE THE MOST		WHO LOST THE MOST	
	Millions of dollars		Millions of dollars
	$1,112	GENERAL MOTORS	$1,979
	1,075	CHASE MANHATTAN	623
ELECTRIC	1,026	FPL GROUP	558
ORRIS	937	TRAVELERS	499
	712	UNISYS	357
& GAMBLE	555	BANK OF BOSTON	275
	533	CAMPBELL SOUP	238
	530	CHRYSLER	214
MYERS SQUIBB	496	EASTMAN KODAK	206
	465	RJR NABISCO	194
	462	MNC FINANCIAL	173
	409	MCI COMMUNICATIONS	168
	403	NATIONAL SEMICONDUCTOR	165
H	403	MIDLANTIC	159
LA	394	AMERICAN CYANAMID	154

DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC

and boosted earnings by 22%. Not all oil companies reported higher profits, though. Chevron, Mobil, and Pennzoil had lower earnings, while Exxon's profits were flat for the quarter.

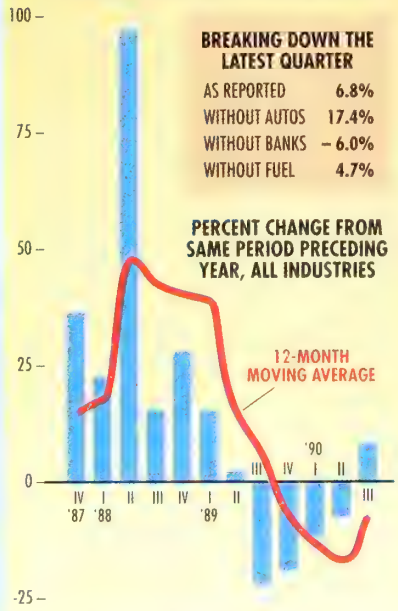
Higher energy prices may be good news for the oil companies, but they are going to make life harder for many industries. The airlines have been raising fares, but other energy-intensive sectors will be hard-pressed to pass along higher costs to customers because of intense global competition that did not exist during the oil shocks of the '70s. Regional Financial Associates estimates that the $10-a-barrel increase in oil prices since the invasion of Kuwait will shave 11.5% from the 1991 pretax profits of paper manufacturers, 9.2% from primary metals producers, 8.7% from chemical companies, and 8.4% from textile ma

As the eight-year expansion bega lose steam, corporate executives ha enough on their minds before Sad Hussein sent his troops into Ku With the threat of war in the Mi East, the new caution flags in exec suites could well make further dec in earnings a self-fulfilling prophec

By Monica Roman in New

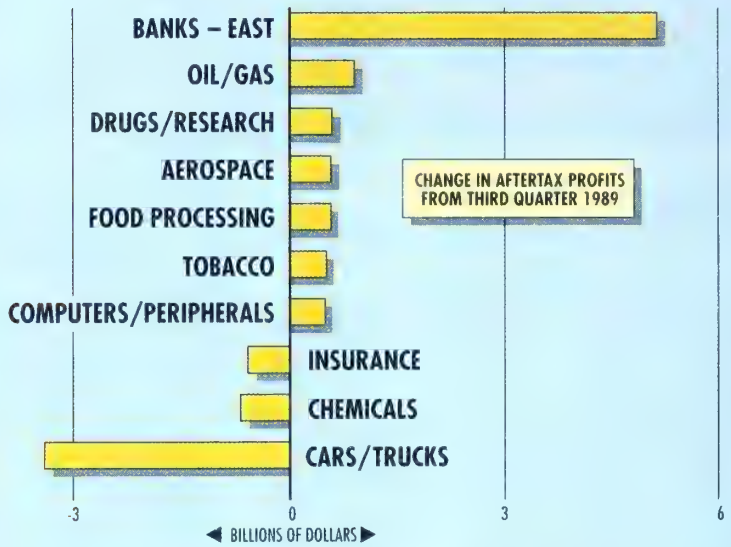
A SPOTLIGHT ON THIRD-QUARTER PROFITS

AFTERTAX PROFITS QUARTER BY QUARTER

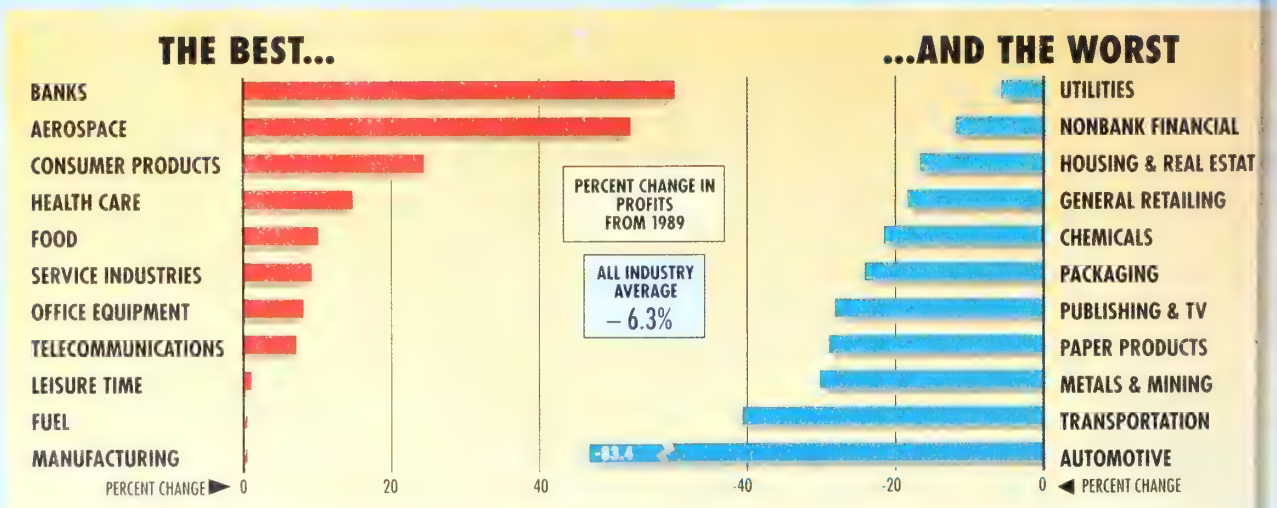


INDUSTRIES WITH THE BIGGEST DOLLAR CHANGE IN THE QUARTER

In 1990's third quarter, overall profits were up from a year earlier. But the 7% gain was hardly worth cheering about, since last year's third quarter was so bad. These industry groups had the biggest impact on the latest quarter's $2.5 billion rise



RANKING THE INDUSTRIES FOR THE FIRST NINE MONTHS OF 199



DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC.

CORPORATE SCOREBOARD

THIRD QUARTER 1990

)SSARY

s: Includes all sales and other operating nues. For banks, includes all operating nues.
its: Net income before extraordinary s. For banks, profits are net income after rity gains or losses.

Margins: Net income from continuing operations before extraordinary items as percent of sales.
Return on common equity: Ratio of net income available for common stockholders (most recent 12 months) to latest available common equity, which includes common stock, capital surplus, and retained earnings.

Price-earnings ratio: Based on Oct. 26, 1990, common stock price and corporate earnings from continuing operations before extraordinary items for most recent 12-month period.
Earnings per share: For most recent 12-month period. Includes all common-stock equivalents.

MPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30	PRICE-EARNINGS RATIO 10-26	12 MONTHS' EARNINGS PER SHARE
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %			
L-INDUSTRY MPOSITE	**930929.9**	**9**	**2742544.4**	**7**	**38767.9**	**7**	**126209.6**	**-6**	**4.2**	**4.2**	**11.3**	**14**	**1.82**
EROSPACE													
USTRY COMPOSITE	**25909.8**	**9**	**76437.5**	**14**	**1228.9**	**84**	**2676.8**	**52**	**4.7**	**2.8**	**12.4**	**10**	**3.51**
eing	7176.0	13	20580.0	33	378.0	56	1067.0	78	5.3	3.8	17.1	14	3.32
nCorp (1)	463.0	9	1269.0	-10	2.0	-67	35.0	52	0.4	1.4	10.5	10	0.64
neral Dynamics	2459.5	-2	7574.9	2	68.5	-10	-109.3	NM	2.8	3.0	-1.3	NM	-0.65
man	203.3**	7	614.3	3	4.9	NM	14.0	334	2.4	NM	10.4	6	1.07
kheed	2319.0	5	6989.0	2	86.0	NM	236.0	105	3.7	NM	5.9	13	2.01
rtin Marietta	1491.7	5	4567.7	9	108.8	25	270.4	16	7.3	6.1	23.1	6	6.74
Donnell Douglas	4178.0	13	12114.0	18	247.0	606	286.0	NM	5.9	0.9	7.6	7	7.01
rthrop	1277.4	3	3968.7	1	42.4	97	167.7	NM	3.3	1.7	13.7	5	2.86
r Industries (5)	318.8	5	844.2	3	7.0	-16	11.4	-56	2.2	2.7	0.0	NM	0.00
dstrand	384.2	5	1160.7	6	33.0	25	82.5	-7	8.6	7.2	18.8	8	3.06
oko! (6)	292.5	9	917.4	5	11.5	29	34.3	226	3.9	3.3	16.1	5	2.29
ted Technologies	5346.3**	13	15837.6	9	239.8	22	581.8	12	4.5	4.1	14.7	8	6.02
JTOMOTIVE													
USTRY COMPOSITE	**70061.6**	**6**	**220804.3**	**-2**	**-2038.8**	**NM**	**1496.3**	**-83**	**NM**	**2.3**	**2.6**	**30**	**0.82**
S & TRUCKS													
OUP COMPOSITE	**61845.2**	**6**	**196052.8**	**-2**	**-2071.1**	**NM**	**1100.8**	**-87**	**NM**	**2.4**	**2.2**	**38**	**0.68**
ysler	6496.0**	-15	22973.0	-15	214.0	NM	37.0	-96	NM	4.1	-8.5	NM	-2.74
d Motor	22986.9	14	73459.1	2	101.7	-79	1378.6	61	0.4	2.4	7.1	8	3.67
neral Motors	30772.7**	7	94829.3	-1	-1978.8	NM	-368.7	NM	NM	1.8	0.8	NM	-0.19
vistar International (2)	972.0	-10	2883.0	11	6.0	-79	-4.0	NM	0.6	2.6	-7.2	NM	-0.18
car	617.6**	-26	1908.4	-24	14.0	-71	57.9	-60	2.3	5.8	15.1	6	4.49
TS & EQUIPMENT													
OUP COMPOSITE	**4765.6**	**6**	**14713.5**	**1**	**44.3**	**-8**	**325.7**	**-26**	**0.9**	**1.1**	**8.7**	**12**	**1.66**
in Industries	429.3	14	1269.4	11	10.0	121	23.3	59	2.3	1.2	5.7	13	1.10
nmins Engine	829.8	3	2562.5	-4	-55.8	NM	-40.8	NM	NM	NM	-15.6	NM	-5.79
a	1265.6	8	3962.7	0	16.8	-43	71.5	-36	1.3	2.5	8.6	10	2.26
le-Picher Industries (1)	173.0	2	524.4	-5	9.4	315	37.6	-12	5.4	1.3	NM	0	4.52
an	869.1	1	2763.5	-1	33.9	-15	134.3	-19	3.9	4.6	15.3	8	4.92
lin (4)	427.7	15	1230.2	12	13.5	318	33.7	15	3.2	0.9	7.3	12	0.85
leral-Mogul	274.3	10	844.0	1	5.0	-21	16.7	-47	1.8	2.5	5.8	18	0.63
dine Mfg. (9)	118.6	7	341.5	5	7.2	39	20.8	17	6.0	4.7	14.6	10	1.84
ith (A. O.)	224.8	3	728.0	-4	6.0	NM	23.5	172	2.7	NM	2.2	19	0.80
ndard Products (6)	153.3	2	487.3	5	-1.7	NM	5.1	-71	NM	0.9	5.7	16	0.87
E & RUBBER													
OUP COMPOSITE	**3450.8**	**8**	**10038.0**	**5**	**-12.1**	**NM**	**69.7**	**-76**	**NM**	**3.3**	**4.3**	**23**	**1.03**
dag	153.7	13	423.2	12	21.0	5	55.5	3	13.7	14.6	32.0	14	5.36
lisle	157.7	16	469.5	11	6.4	28	17.1	-23	4.1	3.7	10.2	10	2.71
per Tire & Rubber	239.8	3	683.1	4	16.9	14	47.1	17	7.1	6.4	18.5	10	1.58
odyear Tire & Rubber	2899.7	8	8462.2	4	-56.4	NM	-49.9	NM	NM	2.5	-1.8	NM	-0.67

d quarter ending Aug. 31. (2) Third quarter ending July 31. (3) Fourth quarter and most recent six months ending Sept. 30. (4) Fourth quarter and most recent six months ending Aug. Fourth quarter and most recent six months ending July 31. (6) First quarter and most recent six months ending Sept. 30. (7) First quarter and most recent six months ending Aug. First quarter and most recent six months ending July 31. (9) Second quarter and most recent six months ending Sept. 30. (10) Second quarter and most recent six months ending Aug. 1) Second quarter and most recent six months ending July 31. *Sales include excise taxes. **Sales include other income. ***Sales include excise taxes and other income. †Revenues ajor subsidiaries not included in consolidated sales. Earnings per share are for latest 12 months, not necessarily for end of most recent fiscal year; they include all common stock ilents but exclude extraordinary items. NA=not available. NM=not meaningful.

DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC.

CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY		
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990	3RD QUARTER 1989	12 MONTHS ENDING 9-30	PRICE EARNINGS RATIO 10-26	MC EAR $
BANKS													
INDUSTRY COMPOSITE	**59463.0**	**-2**	**179912.3**	**3**	**1320.7**	**NM**	**7659.9**	**58**	**2.2**	**NM**	**6.8**	**10**	**1**
(a) **BANKS - EAST**													
GROUP COMPOSITE	**33184.9**	**-5**	**102161.3**	**1**	**-276.7**	**NM**	**2172.2**	**NM**	**NM**	**NM**	**0.8**	**60**	**0**
Bank of Boston	1204.6	-26	4320.3	-10	-274.6	NM	-230.1	NM	NM	NM	-12.3	NM	-2
Bank of New England	564.5	-38	2041.0	-26	-123.2	NM	-203.1	NM	NM	4.7	NM	NM	-20
Bank of New York	1346.6	-4	4031.8	-2	70.6	NM	243.3	NM	5.2	NM	12.8	4	
Bankers Trust New York	1884.0	1	5700.0	5	170.0	NM	542.0	NM	9.0	NM	25.3	4	
BayBanks	268.2	5	805.9	-3	-12.3	NM	-37.6	NM	NM	5.9	-5.7	NM	-
Chase Manhattan	3203.0	11	10200.0	0	-623.0	NM	-527.0	NM	NM	NM	-9.9	NM	-3
Chemical Banking	1983.6	-4	6011.6	-2	-43.7	NM	221.1	NM	NM	NM	8.1	4	
Citicorp	9231.0	-6	29025.0	6	221.0	-38	700.0	-45	2.4	3.7	-2.6	NM	-(
CoreStates Financial	652.5	0	1923.2	-1	62.7	-17	186.8	-18	9.6	11.6	16.1	5	
First Fidelity Bancorporation	799.3	3	2328.7	3	70.1	33	-59.2	NM	8.8	6.8	-6.9	NM	
Fleet/Norstar Financial Group	982.6	5	3126.7	17	38.5	-60	0.4	NM	3.9	10.3	4.2	12	
KeyCorp	441.7	7	1281.0	5	37.2	3	110.7	10	8.4	8.7	14.3	6	
Manufacturers Hanover	1975.0	-9	5809.0	-9	77.0	NM	206.0	NM	3.9	NM	7.7	5	
Mellon Bank	841.0	-8	2651.0	-1	66.0	5	273.0	56	7.8	6.9	16.5	4	
Meridian Bancorp	315.2	12	945.2	18	-21.0	NM	28.7	-61	NM	9.8	7.1	9	
Midlantic	601.3	2	1907.7	13	-159.0	NM	-182.4	NM	NM	11.2	-13.5	NM	-
MNC Financial	826.7	6	2431.1	9	-173.4	NM	-241.9	NM	NM	8.8	-12.9	NM	-
Morgan (J. P.)	2699.0	5	7842.0	0	208.0	NM	584.0	NM	7.7	NM	15.6	9	
PNC Financial	1246.6	7	3685.3	7	55.9	-56	239.3	-36	4.5	10.9	8.5	6	
Republic New York	708.6	5	2014.9	5	54.7	NM	151.8	NM	7.7	NM	16.7	5	
Shawmut National	684.6	-9	2095.4	-7	11.9	-82	69.1	-65	1.7	8.8	-18.7	NM	
State Street Boston	337.9	22	964.3	22	29.9	11	86.0	13	8.8	9.8	17.1	8	
UJB Financial	387.3	25	1020.2	12	-19.8	NM	11.3	-88	NM	10.1	4.2	9	
(b) **BANKS - MIDWEST**													
GROUP COMPOSITE	**8867.6**	**-1**	**26471.2**	**3**	**653.0**	**-2**	**1928.1**	**-11**	**7.4**	**7.4**	**12.5**	**7**	**2**
AmeriTrust	339.6	12	962.3	8	14.0	-53	-19.2	NM	4.1	9.9	0.8	71	
Banc One	874.3	8	2531.0	8	109.1	19	314.9	23	12.5	11.4	15.1	8	
Boatmen's Bancshares	382.9	3	1124.2	3	34.7	8	100.3	4	9.1	8.6	11.8	6	
Comerica	329.6	4	975.7	5	33.3	NM	97.1	100	10.1	NM	17.3	5	
Continental Bank	716.3	-13	2354.5	-5	40.4	-56	56.0	-79	5.6	11.2	3.2	10	
First Bank System	525.5	-19	1620.5	-14	35.3	479	93.7	-14	6.7	0.9	-3.6	NM	-
First Chicago	1422.0	-3	4298.8	3	36.2	NM	192.2	-19	2.5	NM	12.1	3	
First of America Bank	352.6	6	1018.0	5	33.5	7	97.9	3	9.5	9.4	13.9	5	
Huntington Bancshares	318.4	7	940.5	11	2.1	-92	57.8	-29	0.7	9.4	11.2	8	
Manufacturers National	296.0	7	857.7	3	29.1	6	78.2	-1	9.8	9.9	15.6	6	
Michigan National	307.6	-41	929.0	-21	8.4	-93	45.4	-71	2.7	22.5	9.5	3	
National City	669.3	4	2010.0	6	65.1	-2	197.1	1	9.7	10.4	16.8	6	
NBD Bancorp	680.6	6	1999.9	6	69.9	11	204.5	6	10.3	9.8	15.2	7	
Northern Trust	339.0	8	977.7	7	30.4	15	84.8	5	9.0	8.4	19.9	8	
Norwest	879.5	12	2581.1	14	71.5	37	209.9	20	8.1	6.6	18.7	6	
Society	434.7	-2	1290.4	12	39.9	7	117.5	891	9.2	8.4	14.8	5	
(c) **BANKS - SOUTH & SOUTHEAST**													
GROUP COMPOSITE	**7455.5**	**6**	**21988.1**	**8**	**306.4**	**-52**	**1321.8**	**-27**	**4.1**	**9.1**	**11.7**	**7**	**2**
Barnett Banks	838.1	10	2445.2	8	25.8	-60	99.8	-48	3.1	8.5	10.3	6	
C&S/Sovran	1329.1	2	3945.0	4	33.9	-74	221.9	-41	2.6	10.0	17.3	NA	
Crestar Financial	321.5	8	932.4	6	24.2	-9	60.2	-21	7.5	8.9	11.6	5	
First Union	1013.7	21	3007.3	23	84.3	19	248.8	15	8.3	8.4	10.8	6	
First Wachovia	632.1	2	1864.9	3	75.4	17	221.9	11	11.9	10.5	15.9	8	
NCNB	1705.5	5	4939.9	9	57.0	-60	334.5	8	3.3	8.9	14.2	4	
Signet Banking	368.0	6	1078.4	8	4.5	-84	34.6	-62	1.2	8.0	9.0	4	
Southeast Banking	397.0	-7	1240.9	-3	-86.9	NM	-164.4	NM	NM	7.1	-26.3	NM	
SunTrust Banks	850.6	4	2534.1	3	88.2	6	264.6	5	10.4	10.2	15.9	6	
(d) **BANKS - WEST & SOUTHWEST**													
GROUP COMPOSITE	**9955.0**	**3**	**29291.7**	**4**	**638.2**	**17**	**2237.8**	**18**	**6.4**	**5.6**	**12.9**	**5**	
BankAmerica	3117.0	9	9068.0	7	235.0	4	665.0	-1	7.5	7.9	13.6	5	
First City Bancorporation of Texas	331.1	-10	1172.4	8	-101.9	NM	8.0	-90	NM	7.8	1.6	4	
First Interstate Bancorp	1580.2	-10	4580.0	-8	155.4	NM	347.6	100	9.8	NM	-0.7	NM	
Security Pacific	2674.0	6	7757.6	5	135.3	-27	518.9	-5	5.1	7.3	15.3	3	
U. S. Bancorp	495.2	17	1420.6	16	48.6	26	138.1	23	9.8	9.1	15.7	6	
Valley National	291.8	-2	853.3	-6	2.9	NM	5.5	NM	1.0	NM	-1.6	NM	
Wells Fargo	1465.7	2	4439.8	5	162.8	6	554.8	25	11.1	10.7	24.1	4	
CHEMICALS													
INDUSTRY COMPOSITE	**35420.5**	**13**	**104514.3**	**7**	**1712.1**	**-28**	**6772.2**	**-21**	**4.8**	**7.6**	**15.7**	**10**	
Air Products & Chemicals (3)	816.3	22	2242.2	12	63.1	24	180.5	12	7.7	7.6	14.2	12	
American Cyanamid	1056.3	9	3437.1	7	-154.0	NM	51.3	-77	NM	5.3	3.6	49	
Arco Chemical	681.0	8	2071.0	1	56.0	-40	240.0	-27	8.2	14.9	18.5	10	
Betz Laboratories	153.4	15	444.4	14	17.6	17	49.4	17	11.5	11.3	27.9	17	

Footnotes on page 143

M&A clients who require
totally objective advice,
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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS				
	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30 %	PRICE-EARNINGS RATIO 10-26	MOST EARNINGS PER SHARE
Dexter	225.8	10	677.2	6	10.6	2	32.8	–5	4.7	5.1	12.3	11	1.[illegible]
Dow Chemical	4919.0**	16	14626.0	10	284.0	–52	1110.0	–46	5.8	13.9	18.1	7	5.[illegible]
Du Pont	9933.0*	16	28983.0	9	533.0	–3	1842.0	–8	5.4	6.4	14.5	10	3.[illegible]
Engelhard	874.6	49	2284.4	29	16.0	–59	48.9	–29	1.8	6.6	–14.7	NM	–2.[illegible]
Ethyl	624.2	2	1837.2	3	56.2	3	165.8	6	9.0	8.9	23.3	13	1.[illegible]
Ferro	281.4	6	843.2	4	8.0	–33	21.2	–43	2.8	4.5	12.8	13	1.[illegible]
First Mississippi (6)	134.9	32	398.4	11	4.3	372	6.4	–7	3.2	0.9	4.1	22	0.[illegible]
Freeport-McMoRan	421.4	–14	1192.0	–20	33.4	44	300.2	142	7.9	4.7	193.2	7	5.[illegible]
Fuller (H. B.) (1)	203.1	7	589.2	5	6.3	65	14.1	33	3.1	2.0	10.5	13	2.[illegible]
Georgia Gulf	232.7	–7	703.1	–18	23.2	–50	76.3	–49	10.0	18.3	NM	1	4.[illegible]
Goodrich (B. F.)	634.5	6	1856.8	1	50.6	29	101.7	–29	8.0	6.5	10.0	7	4.[illegible]
Grace (W. R.)	1671.6	12	4807.4	9	45.2	–54	129.1	–26	2.7	6.6	12.0	8	2.[illegible]
Great Lakes Chemical†	279.8	14	811.8	33	35.4	12	104.3	14	12.7	12.9	20.3	14	3.[illegible]
Hanna (M. A.)†	290.3	0	847.6	1	17.2	–21	38.8	–46	5.9	7.5	9.6	8	1.[illegible]
Hercules	812.0	3	2379.2	3	29.5	–33	93.4	–28	3.6	5.6	–6.9	NM	–2.[illegible]
IMC Fertilizer Group (6)	266.1	6	857.6	–4	23.0	15	63.7	–28	8.6	8.0	10.4	11	3.[illegible]
Imcera Group (6)	375.7	19	1150.2	37	18.0	140	59.6	–19	4.8	2.4	8.2	19	3.[illegible]
Lubrizol	366.6	33	1081.5	14	96.3	351	158.5	103	26.3	7.8	27.1	9	4.[illegible]
Lyondell Petrochemical	1615.0	27	4506.0	12	50.0	–32	283.0	–9	3.1	5.7	NM	3	4.[illegible]
Monsanto	2140.0	4	6793.0	2	74.0	41	515.0	–13	3.5	6.1	14.6	9	4.[illegible]
Morton International (6)	451.9	27	1328.1	22	33.7	30	109.1	85	7.5	7.3	14.1	14	2.[illegible]
Nalco Chemical	300.3	11	886.8	13	32.7	1	95.5	9	10.9	12.0	53.7	15	3.[illegible]
NL Industries	221.0	–11	679.3	11	17.5	–73	83.0	–45	7.9	26.4	80.1	8	1.[illegible]
Olin	656.0	13	1952.0	2	15.0	–38	76.0	–18	2.3	4.1	16.1	6	5.[illegible]
Quantum Chemical	621.9*	12	1890.7	–8	–1.4	NM	11.5	–88	NM	NM	NM	9	1.[illegible]
Rexene	130.4	–7	375.9	–20	3.5	NM	4.9	–83	2.7	NM	NM	NM	–0.[illegible]
Rohm & Haas	683.6	10	2146.5	5	45.9	41	170.0	10	6.7	5.2	16.1	10	2.[illegible]
Schulman (A.) (4)	175.0**	23	516.4	11	10.9	26	28.5	19	6.2	6.1	17.7	15	1.[illegible]
Sterling Chemicals (3)	161.8	57	418.1	1	25.0	227	54.7	–4	15.5	7.4	60.5	5	1.[illegible]
Union Carbide	2203.0	3	6511.0	–2	91.0	–35	301.0	–43	4.1	6.5	13.6	6	2.[illegible]
Vista Chemical (3)	182.1	–3	548.8	–7	7.8	–63	44.5	–50	4.3	11.3	NM	4	5.[illegible]
Wellman	205.4	138	623.4	131	14.0	26	50.2	30	6.8	12.8	18.6	8	2.[illegible]
Witco	419.3	6	1217.8	1	19.6	–4	57.4	–10	4.7	5.2	4.9	19	1.[illegible]
5 **CONGLOMERATES**													
INDUSTRY COMPOSITE	**43155.4**	**7**	**128416.4**	**5**	**1762.5**	**–14**	**6203.0**	**–3**	**4.1**	**5.1**	**16.9**	**10**	**3.[illegible]**
Allied-Signal	2961.0	5	9200.0	4	105.0	–13	355.0	–14	3.5	4.3	14.1	8	3.[illegible]
Dart Group (11)	262.7	18	772.7	19	3.2	23	10.3	–5	1.2	1.2	4.5	12	[illegible]
Figgie International	321.4	3	1004.3	4	7.1	–56	31.1	–30	2.2	5.2	14.8	7	2.[illegible]
Fuqua Industries	239.3	2	736.1	3	1.6	89	13.4	50	0.7	0.4	3.6	18	[illegible]
General Cinema (2)	506.0	3	1665.7	13	5.7	–78	55.6	–43	1.1	5.2	4.0	23	[illegible]
General Electric	14050.0	10	40695.0	7	1026.0	9	3064.0	11	7.3	7.4	20.1	11	4.[illegible]
General Host (11)	113.1	4	411.5	5	–0.5	NM	10.5	536	NM	0.5	2.5	23	[illegible]
Greyhound Dial	875.9	–3	2653.8	–1	32.0	6	88.0	9	3.7	3.3	11.5	7	1.[illegible]
Itel	566.7	4	1706.1	9	7.3	–31	20.2	–14	1.3	2.0	2.5	21	[illegible]
ITT	5000.0	2	15200.0	1	224.0	1	874.0	31	4.5	4.5	14.3	5	8.[illegible]
LTV	1447.5	–4	4526.7	–5	–30.4	NM	90.4	–53	NM	5.7	NM	1	[illegible]
National Intergroup (9)	700.8	25	2120.3	18	–0.3	NM	–56.1	NM	NM	NM	–15.9	NM	–1.[illegible]
Ogden	389.1	–9	1178.9	4	15.8	–45	60.4	–2	4.1	6.7	13.9	10	[illegible]
Pall (5)	168.6	17	453.8	14	25.4	7	59.0	19	15.1	16.6	16.3	16	[illegible]
Penn Central	562.5	20	1603.6	28	26.7	–9	77.8	–48	4.7	6.2	5.6	10	[illegible]
Premark International	669.0	12	1957.4	6	4.2	–69	24.2	–59	0.6	2.3	5.9	11	[illegible]
Teledyne	846.4	–3	2565.4	–3	9.1	–79	68.4	–39	1.1	5.0	20.1	7	[illegible]
Tenneco	3392.0	6	10630.0	4	91.0	1	431.0	14	2.7	2.8	18.0	8	[illegible]
Textron	1898.9	9	5770.5	7	66.6	12	204.9	7	3.5	3.4	10.8	7	[illegible]
TRW	2012.0	12	6103.0	13	46.0	–23	166.0	–17	2.3	3.3	12.4	9	[illegible]
USX	5114.0*	16	14430.0	4	163.0	–7	551.0	–24	3.2	4.0	13.8	10	[illegible]
Valhi	418.8**	–16	1345.2	–6	6.4	–86	60.4	–34	1.5	9.2	26.7	11	[illegible]
Whitman	639.7	5	1686.5	4	–72.4	NM	–56.5	NM	NM	5.0	–3.6	NM	–1.[illegible]
6 **CONSUMER PRODUCTS**													
INDUSTRY COMPOSITE	**55361.3**	**15**	**157050.6**	**11**	**3521.5**	**22**	**9277.5**	**25**	**6.4**	**6.0**	**23.5**	**15**	**2[illegible]**
(a) [illegible]													
GROUP COMPOSITE	**5068.4**	**12**	**13623.6**	**12**	**339.9**	**3**	**765.1**	**–4**	**6.7**	**7.3**	**18.5**	**9**	**1[illegible]**
Brown Group (11)	435.7	2	1357.7	2	5.2	52	24.6	107	1.2	0.8	10.1	11	[illegible]
Crystal Brands	243.9	–5	640.1	0	12.4	9	17.7	11	5.1	4.4	11.4	5	2.[illegible]
Hartmarx (1)	313.4	–1	959.4	1	–4.8	NM	–57.6	NM	NM	0.1	–17.6	NM	–1.[illegible]
Kellwood (8)	197.8	–5	560.3	–6	4.3	–56	2.2	–92	2.2	4.8	4.2	9	[illegible]
L. A. Gear (1)	300.3	40	712.9	58	14.3	–35	38.4	–12	4.8	10.2	26.0	5	4.[illegible]
Leslie Fay	268.7	5	657.8	7	15.4	14	26.2	12	5.7	5.3	16.7	6	5.[illegible]
Liz Claiborne	499.6	22	1260.7	22	62.6	23	150.1	21	12.5	12.4	28.9	11	8.[illegible]
Nike (7)	833.6	38	2020.5	36	99.7	31	230.0	43	12.0	12.6	34.0	8	5.[illegible]
Oxford Industries (7)	130.4	–11	392.0	–5	1.2	–69	2.2	–71	1.0	2.7	5.1	13	[illegible]
Phillips-Van Heusen (11)	191.1	15	532.4	11	5.7	49	9.0	–11	3.0	2.3	33.3	8	3.[illegible]
Reebok International	588.9	12	1670.5	16	41.0	–18	137.1	–2	7.0	9.5	18.6	7	5.[illegible]

Footnotes on page 143

American Home Products Corporation

has sold its household products subsidiary

Boyle-Midway

to

Reckitt & Colman plc

Morgan Guaranty assisted
American Home Products Corporation
in this transaction

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990	3RD QUARTER 1989	12 MONTHS ENDING 9-30	10-26	MON EARN PE Sha
Russell	193.8	3	519.4	7	21.0	4	48.2	12	10.8	10.8	16.3	11	1.(
Stride Rite (1)	148.2	15	414.8	14	16.5	24	46.1	21	11.1	10.4	30.8	11	2.(
VF	723.1	4	1925.0	3	45.4	–13	91.1	–33	6.3	7.5	15.8	6	2.:
(b) **APPLIANCES & HOME FURNISHINGS**													
GROUP COMPOSITE	**5206.2**	**5**	**15962.6**	**5**	**119.4**	**–44**	**443.6**	**–10**	**2.3**	**4.3**	**12.8**	**11**	**1.(
Armstrong World Industries	639.5	2	1929.9	2	28.3	–35	137.2	12	4.4	6.9	24.5	5	3.1
Circuit City Stores (10)	554.9	18	1739.5	21	19.0	13	67.0	16	3.4	3.6	22.0	7	1.
Highland Superstores (11)	196.5	–1	698.5	–2	–2.0	NM	–11.5	NM	NM	NM	–8.7	NM	–0.
Interco (10)	369.1	14	1107.3	–20	–30.5	NM	–82.5	NM	NM	9.6	NM	NM	–5.
Kimball International (6)	144.8	–6	443.9	4	9.3	–8	31.3	9	6.4	6.6	15.3	8	2.
La-Z-Boy Chair (8)	123.4	5	438.8	7	–0.1	NM	17.1	–6	NM	1.9	12.3	9	1.
Ladd Furniture	123.0	–7	398.1	23	1.0	–64	7.1	–54	0.8	2.2	6.1	11	0.
Leggett & Platt	285.0	13	829.0	11	10.5	–14	35.8	1	3.7	4.8	14.9	8	2.
Maytag	781.4	–2	2332.0	2	22.9	–22	86.0	–6	2.9	3.7	12.9	9	1.
Pier 1 Imports (10)	149.6	11	424.7	18	2.6	–65	16.1	–15	1.7	5.4	11.6	7	0.
Toro (5)	175.9	28	613.9	23	–1.7	NM	14.0	–20	NM	1.6	14.0	8	1.
Whirlpool	1663.0	11	5007.0	6	60.0	28	126.0	–9	3.6	3.1	12.1	8	2.
(c) **BEVERAGES**													
GROUP COMPOSITE	**11591.0**	**17**	**32256.4**	**15**	**1060.8**	**17**	**2788.7**	**13**	**9.2**	**9.1**	**25.2**	**19**	**1.**
Anheuser-Busch	2888.7	16	8060.3	12	260.7	9	700.7	10	9.0	9.6	24.5	12	2.
Brown-Forman (8)	252.4	14	729.9	6	36.2	21	92.0	16	14.3	13.5	14.7	20	3.
Coca-Cola	2792.8	27	7680.3	19	394.2	11	1087.6	13	14.1	16.1	39.3	23	1.
Coca-Cola Bottling Consolidated	114.1	12	329.1	13	0.4	NM	1.4	NM	0.4	NM	0.3	NM	–0.
Coca-Cola Enterprises	1067.3	4	3098.6	4	19.0	49	82.3	27	1.8	1.2	5.1	23	0.
PepsiCo	4475.7	15	12358.1	18	350.3	30	824.7	18	7.8	6.9	23.9	19	1
(d) **PERSONAL CARE**													
GROUP COMPOSITE	**12341.1**	**14**	**35494.9**	**12**	**961.5**	**8**	**2379.8**	**18**	**7.8**	**8.4**	**25.6**	**17**	**3.**
Alberto-Culver (3)	223.0	16	619.5	12	11.4	21	28.4	19	5.1	4.9	18.9	19	1
Avon Products	830.8	6	2327.9	3	44.6	29	107.3	34	5.4	4.4	61.0	10	2
Block Drug (9)	129.7	17	363.4	12	13.3	18	37.8	12	10.3	10.2	13.6	12	2
Chemed	155.1	1	450.4	1	5.1	–36	14.6	–29	3.3	5.1	17.0	10	1
Clorox (6)	403.0	10	1224.5	9	39.4	–14	120.1	–2	9.8	12.5	18.1	12	2
Colgate-Palmolive	1457.9	16	4211.9	12	84.4	10	247.6	14	5.8	6.1	36.7	15	4
Ecolab	388.5	5	1030.4	7	23.4	28	36.5	62	6.0	5.0	3.6	35	0
Gillette	1026.3	11	3102.5	12	92.2	41	261.3	27	9.0	7.1	382.3	20	2
Helene Curtis Industries (10)	228.8	22	619.8	22	3.5	–47	7.1	–45	1.5	3.5	6.7	23	1
International Flavors & Fragrances	248.1	14	743.5	9	40.3	18	127.8	12	16.2	15.8	18.4	17	3
Mary Kay	121.1	2	366.4	8	1.8	17	5.6	426	1.5	1.3	NM	NA	
NCH (8)	169.3	11	493.2	9	10.9	7	30.5	6	6.5	6.7	18.2	10	4
Procter & Gamble (6)	6652.0	16	18991.0	15	555.0	–2	1243.0	19	8.3	9.9	23.7	17	4
Stanhome	155.3	16	469.9	20	10.4	19	32.4	18	6.7	6.5	26.4	12	2
Tambrands	152.1	–1	480.7	7	25.9	56	79.7	31	17.0	10.8	7.7	78	1
(e) **TOBACCO**													
GROUP COMPOSITE	**21154.7**	**18**	**59713.1**	**11**	**1039.9**	**96**	**2900.3**	**73**	**4.9**	**2.9**	**24.8**	**12**	**2.**
American Brands	3866.9*	26	10023.0	11	230.8	39	584.6	27	6.0	5.4	22.9	10	3
Philip Morris	12818.0*	16	36946.0	12	937.0	25	2660.0	28	7.3	6.7	33.5	12	3
RJR Nabisco	3529.0	18	10192.0	10	–194.0	NM	–524.0	NM	NM	NM	–72.0	NA	2
Universal (6)	743.9**	10	1988.9	–1	7.1	4	11.2	–47	0.9	1.0	9.4	11	2
UST	196.9*	13	563.2	12	59.0	15	168.6	16	30.0	29.7	45.4	17	1
7 **CONTAINERS & PACKAGING**													
INDUSTRY COMPOSITE	**4922.4**	**17**	**14024.5**	**14**	**165.9**	**–43**	**644.8**	**–24**	**3.4**	**6.9**	**13.6**	**9**	**2**
(a) **GLASS, METAL & PLASTIC**													
GROUP COMPOSITE	**1462.5**	**51**	**3656.9**	**31**	**53.2**	**15**	**142.9**	**17**	**3.6**	**4.8**	**12.1**	**14**	**2**
Ball	351.8	10	1055.2	15	19.4	47	47.4	32	5.5	4.1	13.0	15	2
Constar International	126.7	–7	376.0	–9	1.6	–58	9.9	–13	1.3	2.9	10.8	8	1
Crown Cork & Seal	984.0**	93	2225.7	53	32.2	11	85.6	14	3.3	5.7	12.0	14	3
(b) **PAPER**													
GROUP COMPOSITE	**3460.0**	**6**	**10367.5**	**9**	**112.7**	**–54**	**501.9**	**–31**	**3.3**	**7.5**	**14.0**	**8**	**2**
Bemis	271.7	4	824.9	2	12.4	3	35.5	10	4.6	4.6	18.2	14	1
Federal Paper Board	294.2	0	928.2	4	21.9	–55	95.3	–35	7.5	16.6	17.9	4	3
Greif Bros. (2)	110.3	3	324.0	0	4.6	–19	13.7	–25	4.2	5.3	8.8	17	1
Longview Fibre (2)	172.6	–3	502.8	–3	18.2	0	46.7	–12	10.5	10.2	14.9	9	1
Nashua	162.6	13	452.7	8	8.2	3	16.8	34	5.0	5.5	17.1	13	1
Sonoco Products	415.6	3	1239.8	–1	–28.9	NM	23.5	–70	NM	6.4	8.8	26	0
Stone Container	1428.5	4	4312.0	11	19.8	–72	86.0	–61	1.4	5.1	10.8	4	1
Temple-Inland	604.5	23	1783.1	23	56.5	2	184.4	13	9.3	11.3	16.7	6	3
8 **DISCOUNT & FASHION RETAILING**													
INDUSTRY COMPOSITE	**62090.3**	**8**	**193204.7**	**11**	**1138.0**	**–11**	**4438.2**	**–18**	**1.8**	**2.2**	**13.6**	**15**	**1**
Ames Department Stores (11)	528.7	–54	2868.8	–28	–152.5	NM	–780.4	NM	NM	NM	NM	NM	–2
Baker (J.) (11)	112.3	2	334.7	46	2.0	–37	9.4	37	1.8	2.9	14.6	3	1
Best Products (11)	442.8	3	1709.1	2	–33.7	NM	–20.7	NM	NM	NM	NM	NA	

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Bayer AG

through a wholly owned subsidiary

has acquired the assets of the

Polysar Rubber Division

from an indirect, wholly owned subsidiary of

Nova Corporation of Alberta

Morgan Guaranty assisted in the negotiations
and acted as financial advisor to
Bayer AG in this transaction

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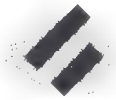
CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	1 MON EARN PI SH.
	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	12 MONTHS ENDING 9-30	10-26	
Blair	110.3	11	354.2	12	7.2	77	26.5	45	6.5	4.1	27.6	7	3.
Carter Hawley Hale Stores (5)	623.3**	0	2199.1	2	–19.5	NM	–6.1	NM	NM	NM	NM	NM	–0.
Charming Shoppes (11)	219.0	9	653.5	10	10.3	–13	27.9	–22	4.7	5.8	12.6	12	0.
Child World (11)	150.8	10	685.5	1	–8.5	NM	4.3	–66	NM	NM	0.1	NM	0.
Consolidated Stores (11)	159.1	20	507.2	6	0.8	NM	–7.5	NM	0.5	0.0	–6.2	NM	–0.
Costco Wholesale (4)	1372.2	29	3298.6	36	21.9	83	42.3	75	1.6	1.1	13.4	26	1.
Dayton Hudson (11)	3242.0**	5	10734.0	7	59.0	5	367.0	32	1.8	1.8	23.0	9	5.
Dillard Department Stores (11)	774.6**	23	2611.6	24	28.7	53	143.6	38	3.7	3.0	14.5	15	4.
Dollar General (11)	153.0	4	478.8	2	2.5	–8	10.2	24	1.7	1.9	10.7	12	0.
Equitable of Iowa	149.9**	6	450.1	13	0.8	–89	12.3	–35	0.5	5.0	8.3	5	3.
Family Dollar Stores (4)	222.7	10	667.6	14	5.7	57	22.7	41	2.6	1.8	14.8	9	1.
Gap (11)	405.0	24	1352.5	28	19.2	36	74.5	21	4.7	4.3	29.0	15	1.
Genesco (11)	117.1	–2	366.8	4	1.0	–83	7.4	–50	0.8	4.7	9.4	6	0.
Grossman's	229.0	–25	628.8	–28	6.8	–48	5.6	–66	3.0	4.3	6.0	7	0.
Hechinger (11)	389.7	16	1045.2	22	10.8	10	27.7	–8	2.8	2.9	8.0	7	0.
Hills Department Stores (11)	458.0	6	1630.7	16	–14.5	NM	–2.8	NM	NM	NM	NM	NM	–0.
Home Depot (11)	990.3	41	2584.5	38	47.2	53	115.4	53	4.8	4.4	24.0	26	1.
Home Shopping Network (4)	244.6	30	753.0	31	1.4	NM	17.2	NM	0.6	NM	18.2	9	0.
Jamesway (11)	216.6	8	691.3	10	–0.9	NM	2.7	–22	NM	0.5	3.2	9	0.
K mart (11)	7785.0**	1	24580.7	14	148.0	2	228.0	–64	1.9	1.9	6.6	15	1.
Lands' End (11)	117.1	12	430.6	7	–2.2	NM	16.0	–30	NM	2.1	19.0	9	1.
Limited (11)	1154.6	17	3844.5	16	79.0	24	294.4	29	6.8	6.4	28.3	14	1.
Lowe's (11)	818.1	10	2138.5	12	30.0	0	62.1	10	3.7	4.0	11.9	9	2.
May Department Stores (11)	2213.0**	8	7648.0	7	78.0	10	441.0	21	3.5	3.5	21.9	10	3.
Melville	2023.0	11	5590.1	11	64.3	–13	150.3	–6	3.2	4.0	28.8	10	3.
Mercantile Stores (11)	515.3**	2	1783.9	2	17.0	3	98.0	–3	3.3	3.3	11.9	7	3.
Merry-Go-Round Enterprises (11)	124.9	38	430.5	59	5.5	253	23.1	147	4.4	1.7	22.8	12	1.
Meyer (Fred) (11)	562.7	15	1938.3	16	8.6	16	–8.3	NM	1.5	1.5	–2.0	NM	–0.
Neiman-Marcus Group (5)	377.7	10	1289.6	14	–6.2	NM	16.3	7	NM	NM	NM	94	0.
Nordstrom (11)	801.8	10	2214.3	10	35.9	–7	80.5	–26	4.5	5.3	13.3	17	1.
Penney (J. C.) (11)	3834.0	5	12979.0	6	83.0	–15	604.0	–9	2.2	2.7	21.9	6	6.
Pep Boys-Manny, Moe & Jack (11)	234.3	17	662.9	21	13.1	31	31.0	12	5.6	5.0	12.0	14	0.
Petrie Stores (11)	313.0	7	1002.3	5	1.8	–50	28.8	–2	0.6	1.2	4.8	21	0.
Price (4)	1200.2**	–1	3469.9	4	31.9	2	81.1	4	2.7	2.6	20.3	13	2.
QVC Network (11)	158.8	189	603.2	245	–4.5	NM	–7.0	NM	NM	1.5	–2.8	NM	–0.
Rose's Stores (11)	348.7	0	1189.5	6	0.5	NM	9.6	62	0.1	NM	4.9	8	0.
Ross Stores (11)	191.9	10	591.9	12	5.0	–30	21.7	–19	2.6	4.1	23.2	4	1.
Sears, Roebuck	13960.0**	6	40417.5	5	179.2	–29	512.9	–39	1.3	1.9	8.6	7	3.
Service Merchandise	657.9	6	2032.6	7	–7.3	NM	–21.6	NM	NM	NM	NM	4	0.
Spiegel	426.0	14	1219.6	19	10.1	–6	25.6	7	2.4	2.9	18.0	8	1.
Strawbridge & Clothier (11)	215.7**	7	775.8	8	–1.4	NM	27.3	13	NM	0.9	12.7	6	3.
TJX (11)	572.5	14	1704.9	11	14.4	12	43.1	2	2.5	2.6	30.1	9	1.
Toys 'R' Us (11)	964.0	24	4237.3	23	26.5	13	301.5	22	2.7	3.0	18.4	20	1.
U. S. Shoe (11)	671.4	15	2096.5	14	1.9	–29	42.5	65	0.3	0.4	10.9	6	1.
Waban (11)	623.0	18	1726.1	18	6.8	–22	15.4	21	1.1	1.7	7.9	8	0.
Wal-Mart Stores (11)	7543.5	25	22419.2	25	272.9	25	952.2	29	3.6	3.6	26.8	25	1.
Wholesale Club (11)	180.3	32	531.3	40	0.6	–56	6.1	56	0.3	0.9	15.5	18	0.
Woolworth (11)	2191.0**	10	7051.0	10	50.0	4	263.0	15	2.3	2.4	15.6	10	2.
9 ELECTRICAL & ELECTRONICS													
INDUSTRY COMPOSITE	**24408.8**	**8**	**72105.0**	**8**	**1072.3**	**–1**	**3343.0**	**–1**	**4.4**	**4.8**	**13.3**	**12**	**2**
(a) **ELECTRICAL PRODUCTS GROUP COMPOSITE**	**6715.1**	**8**	**19675.7**	**7**	**448.0**	**10**	**1160.7**	**0**	**6.7**	**6.5**	**14.9**	**10**	**2**
Cooper Industries	1547.0**	20	4552.3	24	92.7	36	252.3	42	6.0	5.3	10.8	12	
Genlyte Group	123.0	0	377.7	–1	2.1	–24	7.0	–24	1.7	2.3	18.7	6	
Hubbell	186.8	14	543.6	10	20.8	9	64.3	9	11.1	11.6	18.8	13	
MagneTek (6)	265.2	12	832.9	12	6.4	22	28.5	42	2.4	2.2	26.1	5	
National Service Industries (4)	431.7	7	1247.7	7	27.5	6	75.5	5	6.4	6.4	15.1	13	
Raychem (6)	292.3	21	879.0	8	3.3	–31	–118.2	NM	1.1	2.0	–16.4	NM	
Square D	428.6	6	1223.6	1	31.9	3	89.2	–1	7.4	7.6	16.0	9	
Thomas & Betts	148.6	13	453.4	12	5.1	–58	35.6	–15	3.4	9.2	13.6	16	
Thomas Industries	117.0	–3	353.4	10	3.1	21	9.6	–29	2.7	3.3	11.7	6	
Westinghouse Electric	3175.0	2	9212.0	0	255.0	9	717.0	10	8.0	7.5	21.3	8	
(b) **ELECTRONICS GROUP COMPOSITE**	**8490.2**	**7**	**25303.1**	**7**	**366.2**	**10**	**1181.2**	**5**	**4.3**	**4.2**	**14.5**	**10**	**4**
E-Systems	438.7	9	1334.8	12	24.1	13	68.6	15	5.5	5.3	15.7	9	
Harris (6)	719.3	0	2334.0	–6	17.5	32	91.8	1	2.4	3.6	11.3	5	
Litton Industries (5)	1412.0	7	3941.0	4	45.5	–2	135.2	0	3.2	3.5	13.3	10	
Loral (9)	357.1	21	1119.8	31	20.9	6	63.8	20	5.9	6.7	13.3	10	
Motorola	2703.0	12	7951.0	14	102.0	15	390.0	7	3.8	3.7	12.8	13	
Raytheon	2241.0	2	6812.0	4	138.0	0	413.7	6	6.2	6.3	21.0	8	
SCI Systems (6)	289.4	0	872.4	6	3.6	NM	13.0	423	1.2	NM	8.6	8	
Varian Associates (3)	329.7	1	938.1	2	14.6	813	5.0	–79	4.4	0.5	3.2	41	

Footnotes on page 143



BHP Petroleum Pty. Ltd

a wholly owned subsidiary of

The Broken Hill Proprietary Company Limited

has sold 200,200,000 shares of

Woodside Petroleum Ltd.

a public company listed on the Australian Stock Exchange

J.P. Morgan Australia Limited acted as financial advisor to BHP Petroleum, evaluating alternative options and assisting in negotiations leading to the sale

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY		
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989	9 MONTHS 1990 $ MIL	CHANGE FROM 1989	3RD QUARTER 1990	3RD QUARTER 1989	12 MONTHS ENDING 9-30	PRICE EARNINGS RATIO 10-26	MO EARI SHI
(c) **INSTRUMENTS**													
GROUP COMPOSITE	**4600.8**	**7**	**13787.0**	**8**	**177.5**	**12**	**387.8**	**–18**	**3.9**	**3.7**	**15.4**	**9**	**2.**
Ametek	165.2	13	491.7	13	8.8	1	29.1	–6	5.4	6.0	18.1	11	0
Beckman Instruments	201.0	8	589.4	1	9.6	2	26.2	–17	4.8	5.0	11.8	10	1
General Signal	412.8	–4	1278.7	–2	15.7	–16	19.5	–65	3.8	4.3	8.6	16	2
Honeywell	1561.9	4	4636.3	4	86.8	28	262.6	47	5.6	4.5	33.4	5	15
Imo Industries	240.4	28	743.9	31	2.1	–63	14.7	–35	0.9	3.0	7.7	6	1
Johnson Controls (2)	1200.0	14	3456.8	22	29.0	22	64.1	–4	2.4	2.3	10.5	9	2
Millipore	172.8	9	511.3	5	10.3	3	37.3	4	6.0	6.3	12.6	15	1
Perkin-Elmer (5)	227.2	7	653.8	7	13.7	4	35.7	–4	6.0	6.2	11.3	18	1
Tektronix (7)	302.5	3	1086.5	0	9.4	NM	–81.8	NM	3.1	NM	–20.2	NM	–2
Teradyne	117.0	–4	338.6	–9	–7.9	NM	–19.5	NM	NM	2.3	–7.6	NM	0
(d) **SEMICONDUCTORS**													
GROUP COMPOSITE	**4602.8**	**13**	**13339.2**	**8**	**80.6**	**–56**	**613.2**	**–1**	**1.8**	**4.4**	**8.7**	**19**	**1.**
Advanced Micro Devices	254.2	–8	793.3	–3	–17.8	NM	–10.6	NM	NM	4.4	–1.3	NM	–0
AMP	749.7	10	2265.9	7	72.5	5	220.6	4	9.7	10.1	17.0	15	2
Analog Devices (2)	120.7	6	346.7	1	5.2	–33	10.7	–61	4.3	6.8	3.0	24	0
Intel	1012.4	31	2875.2	29	171.9	139	486.4	81	17.0	9.3	19.2	11	3
LSI Logic	172.5	29	471.2	15	4.2	NM	11.5	NM	2.4	NM	3.3	25	0
Molex (6)	170.6	19	475.5	10	17.1	16	50.3	4	10.0	10.3	13.4	15	1
National Semiconductor (7)	442.7	11	1303.3	9	–165.5	NM	–172.7	NM	NM	NM	–28.0	NM	–1
Texas Instruments	1680.0	7	4808.0	0	–7.0	NM	17.0	–93	NM	4.1	0.9	NM	0
10 **FOOD**													
INDUSTRY COMPOSITE	**70007.0**	**7**	**206488.5**	**8**	**1335.7**	**84**	**3903.1**	**10**	**1.9**	**1.1**	**19.0**	**20**	**1.**
(a) **FOOD DISTRIBUTION**													
GROUP COMPOSITE	**9990.7**	**4**	**30910.1**	**3**	**111.3**	**17**	**348.3**	**15**	**1.1**	**1.0**	**15.5**	**15**	**1.**
Fleming	2757.1	0	9005.9	–2	21.7	22	70.6	19	0.8	0.6	11.9	11	2
Richfood Holdings (8)	237.7	–4	762.0	–17	1.9	NM	5.2	NM	0.8	0.1	11.9	15	0
Rykoff-Sexton (8)	363.8	5	1067.7	7	3.5	–11	6.2	–55	1.0	1.1	6.0	17	0
Super Food Services (4)	551.5**	5	1367.6	5	6.4	11	13.5	9	1.2	1.1	14.8	10	1
Super Valu Stores (10)	2657.7	4	8740.8	5	28.6	11	113.4	9	1.1	1.0	16.4	13	2
Sysco (6)	2026.0	8	5850.4	8	37.6	19	104.7	22	1.9	1.7	18.0	22	1
Wetterau (9)	1396.9	7	4115.8	7	11.8	10	34.8	9	0.8	0.8	24.4	12	2
(b) **FOOD PROCESSING**													
GROUP COMPOSITE	**29037.5**	**10**	**84578.2**	**10**	**938.2**	**149**	**3390.7**	**35**	**3.2**	**1.4**	**20.9**	**17**	**2.**
American Maize-Products	139.7	3	384.4	–2	6.6	180	14.5	14	4.7	1.7	9.6	7	2
Borden	1942.6	–2	5737.9	1	107.8	NM	261.3	NM	5.6	NM	21.0	14	2
Campbell Soup (5)	1440.3	11	4682.3	8	–238.4	NM	–78.6	NM	NM	NM	0.3	NM	0
Castle & Cooke	879.0	15	2329.4	15	44.0	88	101.0	42	5.0	3.1	14.2	14	2
ConAgra (7)	4487.4	12	12122.1	25	58.0	16	175.8	15	1.3	1.2	15.9	17	1
CPC International	1453.6	13	4259.6	12	98.6	13	272.5	14	6.8	6.8	31.5	16	4
Dean Foods (7)	518.0	21	1591.0	23	15.9	24	50.1	6	3.1	3.0	17.7	16	2
Flowers Industries (6)	188.9	–2	635.5	1	4.4	–15	26.8	44	2.3	2.7	15.5	13	0
General Mills (7)	1739.5	16	5059.4	15	123.8	15	298.9	20	7.1	7.1	42.9	18	4
Gerber Products (9)	293.6	1	902.2	8	31.7	17	86.3	11	10.8	9.3	27.9	20	2
Heinz (H. J.) (8)	1559.2	7	4661.9	5	143.2	13	395.7	14	9.2	8.7	27.6	16	1
Hershey Foods	735.4	8	1952.5	12	56.6	8	169.5	45	7.7	7.7	18.7	14	2
Hormel (Geo. A.) (2)	654.7	16	1908.4	16	12.6	–12	40.8	8	1.9	2.5	14.7	15	0
Hudson Foods (3)	187.2	14	517.3	7	2.0	–43	8.5	–60	1.1	2.2	7.0	12	0
IBC Holdings (7)	257.9	2	855.2	2	–0.3	NM	–12.6	NM	NM	NM	NM	NA	–1
IBP	2626.6	14	7602.0	10	16.2	38	36.4	68	0.6	0.5	10.0	14	1
Imperial Holly (9)	193.1	4	528.0	2	3.5	13	11.0	–32	1.8	1.7	18.7	7	1
International Multifoods (10)	524.8	6	1601.2	7	7.6	0	16.9	–12	1.5	1.5	8.6	16	2
Kellogg	1351.6	13	3818.0	7	162.3	32	394.3	8	12.0	10.3	26.7	19	3
McCormick (1)	321.5	2	923.8	4	17.9	7	43.9	36	5.6	5.3	18.8	14	1
Michael Foods	112.4	72	345.0	93	4.5	43	13.9	74	4.0	4.8	17.4	10	1
Pioneer Hi-Bred International (4)	118.0	46	919.8	11	–20.3	NM	104.4	0	NM	NM	10.6	14	2
Quaker Oats (6)	1326.5	9	4002.2	6	33.2	–16	194.3	44	2.5	3.3	21.4	17	2
Ralston Purina (3)	1791.4	2	5220.2	5	82.0	81	266.0	21	4.6	2.6	63.6	15	6
Sara Lee (6)	3067.4	12	8819.5	2	106.3	13	333.5	14	3.5	3.4	19.2	15	1
Seaboard	126.6	5	382.3	5	8.0	202	24.3	40	6.4	2.2	12.5	7	17
Smithfield Foods (8)	236.1	37	703.2	25	2.1	NM	9.6	119	0.9	NM	23.3	10	1
Smucker (J. M.) (8)	110.7	11	314.7	13	8.5	5	22.3	7	7.6	8.1	17.5	19	2
Thorn Apple Valley (7)	243.6	28	560.9	20	3.9	NM	–1.0	NM	1.6	NM	0.7	NM	0
WLR Foods (6)	133.0	5	384.2	8	5.0	23	13.1	–22	3.8	5.1	14.7	10	1
Wrigley (Wm.) Jr.	277.1	14	854.2	12	31.0	2	97.2	7	11.2	12.5	28.7	17	2
(c) **FOOD RETAILING**													
GROUP COMPOSITE	**30979.0**	**6**	**91000.1**	**7**	**286.2**	**13**	**164.1**	**–77**	**0.9**	**0.9**	**10.0**	**50**	**0.**
Albertson's (11)	2073.8	14	6023.8	9	52.9	16	164.4	16	2.6	2.5	21.2	20	1
American Stores (11)	5581.0	4	17145.7	7	37.5	52	118.6	79	0.7	0.5	11.0	11	4
Bruno's (6)	586.8	10	1807.5	11	15.4	20	46.5	25	2.6	2.4	18.6	18	0
Casey's General Stores (8)	142.8	6	384.1	12	2.4	2	5.0	70	1.7	1.8	10.3	8	0

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Cemex, S.A.

has sold a controlling interest in

Celanese Mexicana, S.A. de C.V.

to

Hoechst A.G.

Morgan Guaranty initiated this transaction, assisted in the negotiations, and acted as financial advisor to Cemex, S.A.

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	MO EARN
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	12 MONTHS ENDING 9-30 %	10-26	S
Circle K (8)	969.8**	-5	2750.2	-3	-10.8	NM	-786.3	NM	NM	0.7	NM	NM	-18
Dairy Mart Convenience Stores (11)	152.9*	7	420.6	7	1.9	15	2.5	NM	1.2	1.1	7.5	8	0
Delchamps (6)	252.7	8	730.8	6	2.4	-20	11.0	-11	0.9	1.3	15.1	13	1
Eagle Food Centers (11)	282.5	1	871.5	5	0.7	-70	6.6	-9	0.3	0.9	14.3	7	0
Food Lion	1319.4	19	3794.9	19	40.6	26	118.6	28	3.1	2.9	26.5	23	0
Foodarama Supermarkets (2)	167.1	9	497.4	19	0.6	NM	1.8	286	0.4	NM	7.6	11	2
Giant Food (10)	764.0	4	2589.9	7	25.8	16	93.0	10	3.4	3.0	22.1	13	1
Great Atlantic & Pacific Tea (10)	2604.3	1	8574.7	1	36.3	2	121.8	9	1.4	1.4	13.4	11	4
Hannaford Brothers	441.4**	12	1253.7	12	11.5	13	33.5	14	2.6	2.6	17.4	15	2
Kroger	5974.3	8	15275.5	6	0.5	NM	15.5	NM	0.0	NM	NM	48	0
National Convenience Stores (6)	292.2	2	818.5	0	1.1	-86	-7.3	NM	0.4	2.6	-11.8	NM	-0
Penn Traffic (11)	723.7**	1	2223.4	33	-6.1	NM	-26.1	NM	NM	NM	NM	NM	-6
Ruddick (3)	358.0	7	1068.6	8	5.9	0	18.3	13	1.7	1.8	13.2	9	2
Safeway	3465.6	5	10236.7	4	20.8	194	59.4	153	0.6	0.2	NM	29	0
Seaway Food Town (4)	135.4	3	411.9	6	1.3	223	2.5	2	0.9	0.3	8.7	12	1
Smith's Food & Drug Centers	510.2	18	1499.1	20	8.6	19	25.3	34	1.7	1.7	12.8	21	1
Supermarkets General Holding (11)	1585.2	0	4794.7	3	-9.0	NM	-32.3	NM	NM	NM	NM	NA	-81
Weis Markets	311.2	2	943.6	3	21.6	1	61.7	-1	6.9	7.0	14.6	13	1
Winn-Dixie Stores (6)	2284.7	5	6883.5	6	24.4	-3	110.1	5	1.1	1.2	18.0	16	1
11 **FUEL**													
INDUSTRY COMPOSITE	**111884.1**	**23**	**311402.5**	**12**	**4787.5**	**25**	**13400.3**	**0**	**4.3**	**4.2**	**11.0**	**18**	**2.**
(a) **COAL**													
GROUP COMPOSITE	**1154.3**	**7**	**3331.2**	**14**	**48.4**	**24**	**127.5**	**13**	**4.2**	**3.6**	**10.1**	**12**	**1.**
Nacco Industries	324.4	-13	984.4	26	9.0	35	31.6	-10	2.8	3.7	15.4	4	
Nerco	201.1	15	572.7	16	18.7	9	58.0	12	9.3	9.8	13.2	10	1
Pittston	483.8**	22	1360.4	11	17.0	628	26.2	51	3.5	0.6	2.8	55	
Westmoreland Coal	145.0	9	413.7	1	3.8	-36	11.7	37	2.6	4.4	9.3	12	
(b) **OIL & GAS**													
GROUP COMPOSITE	**106146.9**	**23**	**295272.6**	**12**	**4480.0**	**25**	**12582.7**	**-1**	**4.2**	**4.2**	**11.0**	**17**	**2**
Amerada Hess	1750.7**	48	4645.2	12	280.0	440	247.5	-39	16.0	4.4	12.5	12	
American Petrofina	1054.6	48	2783.5	22	26.5	76	106.5	29	2.5	2.1	10.7	9	
Amoco	7927.0**	20	22434.0	13	530.0	58	1375.0	7	6.7	5.1	12.2	16	
Ashland Oil (3)	2375.5**	11	6455.1	8	59.1	NM	160.0	NM	2.5	NM	14.8	8	
Atlantic Richfield	4818.0*	30	13068.0	9	462.0	22	1122.0	-28	9.6	10.2	22.3	14	
Burlington Resources	420.4	6	1359.8	9	37.5	16	157.5	37	8.9	8.2	6.2	33	
Chevron	10550.0***	32	28803.0	20	403.0	-3	1524.0	34	3.8	5.2	4.4	39	
Coastal	2160.6	15	6470.5	6	33.0	302	130.7	22	1.5	0.4	10.8	18	
Crown Central Petroleum	501.1	57	1451.6	60	2.4	-73	18.7	5	0.5	2.8	6.9	10	
Diamond Shamrock	725.0	40	1876.2	22	53.2	427	69.7	34	7.3	2.0	25.7	6	
Exxon	26277.0**	22	74596.9	17	1075.0	0	3455.0	39	4.1	5.0	12.8	15	
Holly (5)	115.1	-1	331.5	17	12.7	44	18.8	-11	11.0	7.5	252.4	7	
Kerr-Mcgee	986.2	32	2643.8	16	43.1	128	100.3	14	4.4	2.5	9.3	17	
Louisiana Land & Exploration	214.2**	32	641.5	14	8.2	5	27.9	-24	3.8	4.8	9.0	36	
Mapco	701.6*	32	1944.7	27	24.8	11	102.9	19	3.5	4.2	44.9	10	
Maxus Energy	173.8	18	474.6	7	4.1	NM	-8.8	NM	2.4	NM	NM	NM	-62
Mitchell Energy & Development (11)	160.1	8	520.0	13	5.1	-22	23.0	30	3.2	4.4	5.1	36	
Mobil	16307.0**	21	45160.0	9	379.0	-29	1277.0	-6	2.3	4.0	10.6	14	
Murphy Oil	577.5**	42	1474.1	20	37.6	NM	84.0	228	6.5	0.6	12.8	14	
Occidental Petroleum	5350.0	11	15631.0	4	111.0	68	290.0	28	2.1	1.4	5.0	19	
Oryx Energy	514.0**	74	1361.0	50	48.0	700	85.0	113	9.3	2.0	6.8	47	
Pennzoil	615.4**	13	1719.7	-5	26.4	-31	63.8	-69	4.3	7.1	7.1	28	
Phillips Petroleum	3306.0	8	9538.0	1	178.0	105	304.0	-36	5.4	2.8	1.9	NM	
Quaker State	225.1	9	656.8	7	4.2	153	15.0	59	1.9	0.8	5.7	14	
Sun	3350.0***	23	9350.0	13	25.0	71	181.0	-33	0.7	3.1	0.2	NM	
Texaco	10954.0**	31	28831.0	9	381.0	25	1062.0	-50	3.5	3.7	16.0	12	
Tosco	557.5	37	1522.1	50	68.4	281	109.6	189	12.3	4.4	67.4	3	
Union Texas Petroleum	324.0**	40	897.0	-1	9.0	-57	56.0	-64	2.8	9.1	10.0	75	
Unocal	2859.0**	12	7799.0	0	121.0	51	363.0	25	4.2	3.1	17.4	16	
Valero Energy	296.6	20	833.3	24	31.8	624	61.4	79	10.7	1.8	11.5	11	
(c) **PETROLEUM SERVICES**													
GROUP COMPOSITE	**4582.9**	**21**	**12798.7**	**16**	**259.1**	**24**	**690.1**	**35**	**5.7**	**5.5**	**12.0**	**24**	
Baroid	155.3	28	422.4	21	5.5	34	12.0	58	3.5	3.4	5.8	28	
Dresser Industries (2)	1181.5	18	3107.7	8	44.6	5	104.5	6	3.8	4.2	10.0	15	
Grace Energy†	131.4**	36	358.2	28	6.1	21	14.2	-20	4.7	5.2	3.5	24	
Halliburton	1791.0**	22	5072.9	26	55.4	31	138.7	61	3.1	2.9	8.6	28	
Schlumberger	1323.8	20	3837.6	10	147.4	29	420.7	39	11.1	10.3	17.6	26	
12 **HEALTH CARE**													
INDUSTRY COMPOSITE	**34070.4**	**14**	**100828.7**	**13**	**3509.3**	**28**	**9777.7**	**15**	**10.3**	**9.2**	**24.3**	**20**	
(a) **DRUG DISTRIBUTION**													
GROUP COMPOSITE	**8579.3**	**13**	**26043.0**	**13**	**119.8**	**15**	**469.9**	**7**	**1.4**	**1.4**	**14.6**	**17**	
Bergen Brunswig (4)	1124.6**	13	3353.7	13	14.5	35	47.7	34	1.3	1.1	14.4	13	
Bindley Western Industries	521.9	39	1438.2	29	1.3	12	4.7	52	0.3	0.3	9.1	14	
Cardinal Distribution (9)	285.3	36	767.0	25	3.7	33	11.3	38	1.3	1.3	11.4	25	

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The Dai-ichi Mutual Life Insurance Company

has acquired an interest in

Compagnie Financière du Groupe Victoire

from

Compagnie Financière de Suez

Morgan Guaranty acted as financial advisor to The Dai-ichi Mutual Life Insurance Company in this transaction

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS				
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30	PRICE-EARNINGS RATIO 10-26	MO EARI SH
Drug Emporium (10)	147.2	23	425.7	23	2.2	–7	6.7	–7	1.5	2.0	14.3	13	0
Durr-Fillauer Medical	196.6	14	602.3	16	4.4	14	12.1	20	2.2	2.2	14.0	15	1
Eckerd (Jack) (11)	782.9	10	2617.3	13	–23.8	NM	0.1	NM	NM	NM	NM	NA	
Fay's (11)	162.3	16	477.2	13	3.3	8	8.2	–10	2.0	2.2	15.2	11	0
Longs Drug Stores (11)	558.7	11	1700.7	10	15.7	3	49.4	6	2.8	3.0	17.4	12	3
McKesson (9)	2028.0**	9	6140.5	11	24.9	–6	69.1	–9	1.2	1.4	17.1	12	2
Medco Containment Services (6)	294.1	34	848.5	37	11.0	NM	28.6	211	3.7	NM	3.2	NM	0
Perry Drug Stores (2)	159.3	–3	496.8	–2	0.7	–15	4.4	–25	0.5	0.5	10.4	11	0
Rite Aid (10)	826.2	7	2514.3	7	21.5	10	81.7	5	2.6	2.5	11.9	15	2
Walgreen (4)	1492.3	11	4660.7	12	40.4	20	145.9	13	2.7	2.5	19.0	16	2
(b) **DRUGS & RESEARCH GROUP COMPOSITE**	**13335.9**	**15**	**38915.8**	**14**	**2404.7**	**32**	**6945.6**	**23**	**18.0**	**15.8**	**29.2**	**20**	**2.**
Allergan	222.2	8	638.5	7	25.4	–5	56.1	–17	11.4	12.9	9.6	21	0
American Home Products	1743.5	–2	5162.0	1	317.6	14	902.4	13	18.2	15.7	52.8	13	3
Bristol-Myers Squibb	2622.0	13	7564.0	11	496.0	21	1322.0	20	18.9	17.7	18.3	34	1
Carter-Wallace (9)	158.1	15	456.0	13	15.6	7	39.8	7	9.9	10.6	14.7	14	3
Lilly (Eli)	1281.8	29	3747.8	24	256.8	21	872.0	22	20.0	21.4	28.2	19	3
Marion Merrell Dow	625.0	164	1832.0	147	133.0	NM	374.0	NM	21.3	NM	38.7	22	1
Merck	1914.3	17	5572.1	16	465.0	19	1339.0	19	24.3	23.9	46.3	18	4
Pfizer	1643.0	14	4620.7	11	243.3	12	646.4	9	14.8	15.1	15.7	17	4
Schering-Plough	793.8	7	2522.9	6	140.0	23	434.5	21	17.6	15.3	25.3	20	2
Syntex (5)	397.3	24	1130.3	13	75.1	49	237.8	14	18.9	15.7	46.8	18	3
Upjohn	748.3	13	2228.1	9	112.2	11	342.2	12	15.0	15.2	26.0	19	1
Warner-Lambert	1186.7	7	3441.5	9	124.7	17	379.5	18	10.5	9.7	37.7	18	3
(c) **HEALTH CARE SERVICES GROUP COMPOSITE**	**4298.7**	**11**	**12709.5**	**12**	**213.0**	**36**	**623.2**	**70**	**5.0**	**4.0**	**17.8**	**14**	**1.**
Beverly Enterprises	540.4	1	1563.1	0	5.7	509	9.6	NM	1.0	0.2	2.6	40	0
FHP International (6)	293.8	40	841.6	41	8.4	25	23.9	21	2.9	3.2	21.5	10	1
Hillhaven (7)	298.9**	9	873.5	10	0.3	–35	1.1	NM	0.1	0.2	1.1	NA	
Humana (4)	1280.3	19	3744.5	19	85.1	28	246.3	22	6.6	6.2	21.8	14	3
Lifetime	185.0	61	512.9	56	4.7	85	12.2	96	2.5	2.2	12.7	10	1
Manor Care (7)	194.7	13	553.6	12	8.5	28	20.9	19	4.3	3.8	12.6	20	0
National Health Laboratories	126.0	25	375.5	27	20.2	36	61.6	29	16.0	14.8	21.1	17	C
National Medical Enterprises (7)	894.8	–10	2795.5	–4	59.7	19	192.2	25	6.7	5.0	20.0	11	3
U. S. Healthcare	334.9**	30	981.2	34	19.0	156	44.8	132	5.7	2.9	28.8	17	1
Universal Health Services	150.1	7	468.2	6	1.4	139	10.5	31	1.0	0.4	7.0	8	C
(d) **MEDICAL PRODUCTS GROUP COMPOSITE**	**7856.5**	**15**	**23160.4**	**14**	**771.9**	**19**	**1738.9**	**–15**	**9.8**	**9.5**	**18.7**	**23**	**1.**
Abbott Laboratories	1506.8	15	4448.6	13	220.8	13	686.0	13	14.7	15.0	34.3	20	2
Bard (C. R.)	199.6	5	588.9	0	10.5	6	29.8	–44	5.3	5.2	13.2	19	C
Bausch & Lomb	357.0	12	1024.2	12	38.2	15	92.2	15	10.7	10.4	16.9	15	4
Baxter International	2020.0	12	5926.0	9	135.0	32	–138.0	NM	6.7	5.6	–1.7	NM	–C
Johnson & Johnson	2869.0	17	8532.0	17	314.0	19	911.0	4	10.9	10.8	24.5	20	3
Medtronic (8)	225.1	17	669.1	16	28.8	18	86.9	18	12.8	12.7	19.9	20	4
Mine Safety Appliances	115.3	15	345.4	13	6.6	9	20.8	8	5.7	6.0	11.2	11	4
Owens & Minor	310.0	19	903.3	34	2.5	86	6.0	168	0.8	0.5	7.9	17	C
U. S. Surgical	134.9	58	360.0	43	12.4	67	31.4	37	9.2	8.6	18.7	34	1
Westmark International	118.8	6	362.9	12	3.1	–45	12.7	–2	2.6	5.1	6.8	11	1
13 **HOUSING & REAL ESTATE INDUSTRY COMPOSITE**	**8739.7**	**4**	**25208.2**	**4**	**372.3**	**–21**	**1047.1**	**–16**	**4.3**	**5.6**	**19.0**	**8**	**2.**
(a) **BUILDING MATERIALS GROUP COMPOSITE**	**7021.9**	**4**	**20237.7**	**3**	**337.6**	**–19**	**928.4**	**–15**	**4.8**	**6.2**	**20.3**	**9**	**2.**
Ameron (1)	121.0	0	326.3	5	4.6	9	8.0	–12	3.8	3.5	9.4	11	3
Barnes Group	134.0	10	416.3	8	3.9	18	12.3	–5	2.9	2.7	9.9	13	1
CalMat	113.7**	–12	318.9	–9	10.3	–28	30.1	–22	9.1	11.0	11.9	11	2
Hughes Supply (11)	149.0	11	418.1	8	1.4	–30	3.2	–51	1.0	1.5	6.1	10	1
Lafarge	538.7	8	1207.9	10	54.4	–11	43.3	–46	10.1	12.2	8.2	8	1
Manville	576.1	5	1655.1	2	24.5	–39	102.1	–15	4.3	7.3	24.8	4	1
National Gypsum	326.2	–6	991.8	–2	–22.7	NM	–60.2	NM	NM	NM	NM	NA	
Noland	110.5	–5	330.0	–4	0.8	–26	3.2	–4	0.7	0.9	4.9	8	1
Owens-Corning Fiberglas	823.0	11	2342.0	10	35.0	–8	107.0	–16	4.3	5.1	NM	4	
Ply-Gem Industries	154.3	9	428.3	13	3.4	1	5.2	–43	2.2	2.4	5.6	8	(9
PPG Industries	1471.7	8	4521.6	5	107.1	0	373.4	3	7.3	7.8	19.7	9	4
RPM (7)	131.5	22	358.7	25	10.6	11	19.9	15	8.1	8.9	17.8	15	1
Sherwin-Williams	638.5	7	1749.4	6	46.7	12	101.7	14	7.3	7.0	17.1	12	2
Southdown	152.5**	–6	432.3	–4	–2.8	NM	11.5	–33	NM	6.0	3.3	18	(7
Standex International (6)	120.4	13	352.0	8	5.4	6	16.7	5	4.5	4.8	15.5	10	2
Tecumseh Products	268.8	–15	1043.6	–10	–14.7	NM	12.3	–81	NM	5.3	4.4	14	5
Texas Industries (7)	186.3**	9	486.6	–5	28.4	NM	20.4	144	15.3	1.2	7.9	9	6
USG	538.0	–4	1601.0	–4	–11.0	NM	–2.0	NM	NM	1.6	NM	18	(9
Valspar (2)	161.0	10	423.5	11	10.1	19	19.9	13	6.3	5.8	20.6	13	3
Vulcan Materials	306.6	0	834.3	2	42.1	–17	100.5	–8	13.7	16.4	19.1	10	7

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Michelin Corporation

an affiliated company of

Compagnie Financière Michelin

has acquired

The Uniroyal Goodrich Tire Company

Morgan Guaranty assisted in the negotiations and acted as co-financial advisor to Michelin Corporation

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	MONTH EARNINGS P SHA
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	12 MONTHS ENDING 9-30	10-26	
(b) **CONSTRUCTION & REAL ESTATE**													
GROUP COMPOSITE	**1717.8**	**4**	**4970.5**	**9**	**34.7**	**–38**	**118.7**	**–28**	**2.0**	**3.4**	**13.3**	**5**	**1.**
Centex (9)	601.9**	15	1724.5	17	14.6	–7	46.7	6	2.4	3.0	13.4	5	4.
Kaufman & Broad Home (1)	325.3	12	991.1	35	8.3	–58	36.8	–28	2.6	6.7	29.3	3	2.
PHM	302.4**	4	822.3	–2	5.2	–57	26.0	–44	1.7	4.2	11.5	5	1.
Ryland Group	334.1	–9	977.0	–3	5.8	–47	17.9	–31	1.7	3.0	16.2	4	2.
U. S. Home	154.1**	–12	455.6	–11	0.9	NM	–8.6	NM	0.6	NM	–8.6	NM	–0.
14 **LEISURE TIME INDUSTRIES**													
INDUSTRY COMPOSITE	**17159.2**	**4**	**48631.4**	**6**	**686.6**	**–31**	**2409.2**	**1**	**4.0**	**6.1**	**11.6**	**16**	**1.**
(a) **EATING PLACES**													
GROUP COMPOSITE	**2873.5**	**8**	**8291.3**	**8**	**289.2**	**12**	**727.6**	**8**	**10.1**	**9.7**	**21.0**	**12**	**1.**
Bob Evans Farms (8)	122.8	13	354.2	11	7.7	1	20.2	11	6.2	7.0	12.4	14	0.
Collins Foods International (8)	146.7	12	445.7	7	7.2	–8	23.1	5	4.9	6.0	11.8	11	1
Karcher (Carl) Enterprises (11)	125.0	2	399.0	4	5.1	8	1.4	–90	4.0	3.8	7.2	19	0.
McDonald's	1769.0	10	4936.5	10	242.2	11	616.1	11	13.7	13.5	21.7	12	2.
Morrison (7)	227.0**	9	690.2	7	4.9	–20	13.0	–45	2.2	3.0	12.3	11	1.
Shoney's (2)	228.4**	9	711.2	10	9.6	55	22.8	56	4.2	3.0	NM	14	0.
Wendy's International	254.6	–5	754.6	–6	12.6	60	30.8	71	4.9	2.9	8.3	16	0.
(b) **ENTERTAINMENT**													
GROUP COMPOSITE	**2516.5**	**15**	**6831.5**	**16**	**192.0**	**95**	**347.3**	**69**	**7.6**	**4.5**	**7.5**	**23**	**1.**
Blockbuster Entertainment	165.3	55	453.4	67	19.2	47	47.5	66	11.6	12.3	25.8	25	0.
Commtron (4)	119.4**	–7	380.6	0	2.0	14	6.1	25	1.7	1.4	15.0	6	0.
MCA	1061.3**	20	2924.2	21	61.4	–2	137.8	3	5.8	7.1	12.7	18	3.
Orion Pictures (10)	135.2	17	381.9	–6	3.3	22	7.3	–49	2.4	2.3	4.9	24	0.
Paramount Communications (2)	1035.3	9	2691.4	11	106.2	474	148.6	497	10.3	1.9	3.6	32	1.
(c) **HOTEL & MOTEL**													
GROUP COMPOSITE	**2939.3**	**6**	**8758.5**	**8**	**95.9**	**–47**	**320.3**	**–26**	**3.3**	**6.5**	**16.2**	**13**	**1.**
Aztar	130.6	–12	387.0	–5	2.4	–52	–13.5	NM	1.8	3.3	–12.4	NM	–0.
Caesars World (5)	223.7	–5	644.5	–4	7.4	–55	19.3	–56	3.3	7.0	14.6	9	1.
Circus Circus Enterprises (11)	176.4	26	428.2	12	16.3	–25	47.9	9	9.3	15.6	48.6	17	2.
Golden Nugget	213.6	309	629.2	276	5.2	NM	38.5	NM	2.4	NM	24.0	10	1.
Hilton Hotels	260.1**	5	799.2	8	21.9	–22	85.2	2	8.4	11.3	12.2	13	2.
Marriott	1657.0	–2	5105.0	2	27.0	–48	101.0	–30	1.6	3.1	29.7	8	1.
Promus	278.0	6	765.4	7	15.7	–78	41.9	–71	5.7	27.0	22.5	NA	la
(d) **OTHER LEISURE**													
GROUP COMPOSITE	**8829.9**	**–1**	**24750.1**	**3**	**109.5**	**–76**	**1014.0**	**–5**	**1.2**	**5.2**	**9.4**	**18**	**1.**
American Greetings (10)	311.8**	10	965.7	8	6.2	24	44.4	21	2.0	1.8	12.2	13	2
Brunswick	587.9	–6	1943.9	11	53.8	NM	88.0	NM	9.2	NM	10.3	8	0.
Carnival Cruise Lines (1)	482.9	19	1094.8	19	107.2	27	187.0	9	22.2	20.8	22.1	8	1.
Eastman Kodak	4774.0	–7	13757.0	2	–206.0	NM	377.0	–36	NM	6.4	4.6	40	0
Fleetwood Enterprises (8)	389 2	–1	1168.2	0	10.8	–31	37.0	–19	2.8	4.0	11.7	8	2.
Harley-Davidson	203.1	11	670.3	14	7.2	–2	35.4	37	3.6	4.0	22.5	7	2
Harman International (6)	131.6	12	425.3	10	1.0	–72	6.8	–39	0.7	2.9	11.4	6	1.
Hasbro	448.8	11	1027.2	3	33.1	6	61.3	–10	7.4	7.8	10.5	9	1.
Huffy	118.4	15	395.4	14	3.9	11	17.0	29	3.3	3.4	17.4	7	2
Mattel	490.4	20	1042.4	19	47.8	26	76.5	30	9.8	9.3	37.4	9	1
Polaroid	463.7	6	1375.5	1	31.3	5	96.0	–3	6.8	6.8	56.8	11	2
Tonka	259.1	–6	541.3	–14	3.9	–63	–25.4	NM	1.5	3.8	–13.2	NM	–1
Tyco Toys	169.0	6	343.1	28	9.3	3	13.1	12	5.5	5.7	17.5	4	2
15 **MANUFACTURING**													
INDUSTRY COMPOSITE	**24260.7**	**8**	**72160.0**	**8**	**1060.3**	**7**	**3343.5**	**0**	**4.4**	**4.4**	**5.6**	**15**	**0.**
(a) **GENERAL MANUFACTURING**													
GROUP COMPOSITE	**9222.6**	**10**	**27033.0**	**7**	**667.0**	**15**	**1990.0**	**11**	**7.2**	**6.9**	**18.3**	**13**	**3.**
Avery Dennison (1)	448.6	6	1349 9	5	13.3	–30	54.8	–13	3.0	4.5	12.8	10	1
Blount (10)	172.9**	–6	499.4	–16	–1.2	NM	9.4	–37	NM	5.4	4.0	16	0
Corning†	886.5	24	2167.7	19	103.5	36	217.1	16	11.7	10.6	16.5	13	3
Crane	372.5	–1	1105.0	0	17.1	10	46.7	10	4.6	4.1	19.9	11	1
Harsco	414 3	38	1254.1	22	18.1	24	53.1	242	4.4	4.8	11.8	11	1
Hillenbrand Industries (1)	259.5	9	817.3	12	16.0	3	56.3	9	6.2	6.5	17.7	17	2
Illinois Tool Works	647.3	18	1867.6	16	46.2	13	136.7	12	7.1	7.5	16.9	13	3
Jostens (6)	141.3	9	599.7	11	2.8	11	47.5	9	2.0	1.9	23.5	18	1
Keystone International	114 3	19	329.7	19	12.1	34	33.5	28	10.6	9.4	20.7	19	1
Mark IV Industries (10)	221.2	4	643.8	2	6.8	–26	18 9	–10	3.1	4.3	15.3	5	1
Minnesota Mining & Mfg.	3343.0	12	9741.0	8	336.0	9	1013.0	6	10.1	10.3	22.7	13	5
Newell	281.1	–5	801.0	–5	27.4	12	73.6	32	9.8	8.3	21.2	12	1
Parker Hannifin (6)	615.6	8	1901.1	5	23.9	9	87.0	27	3.9	3.8	12.0	9	2
Robertson (H. H.)	125.5	–10	359.3	–3	0.5	–68	–7.9	NM	0.4	1.0	–2.6	NM	–0
Rubbermaid	364.0	4	1069.4	3	38.3	18	103.9	15	10.5	9.3	20.4	20	1
Tredegar Industries	131.8	–19	428.2	–12	–5.1	NM	–6.8	NM	NM	2.7	–3.3	NM	–0
Trinova	472.6	4	1459.0	2	8.7	NM	41.0	213	1.8	NM	9.7	8	1
Valmont Industries	210 6	13	639.7	11	2.5	–40	12.3	–15	1.2	2.2	17.1	7	1

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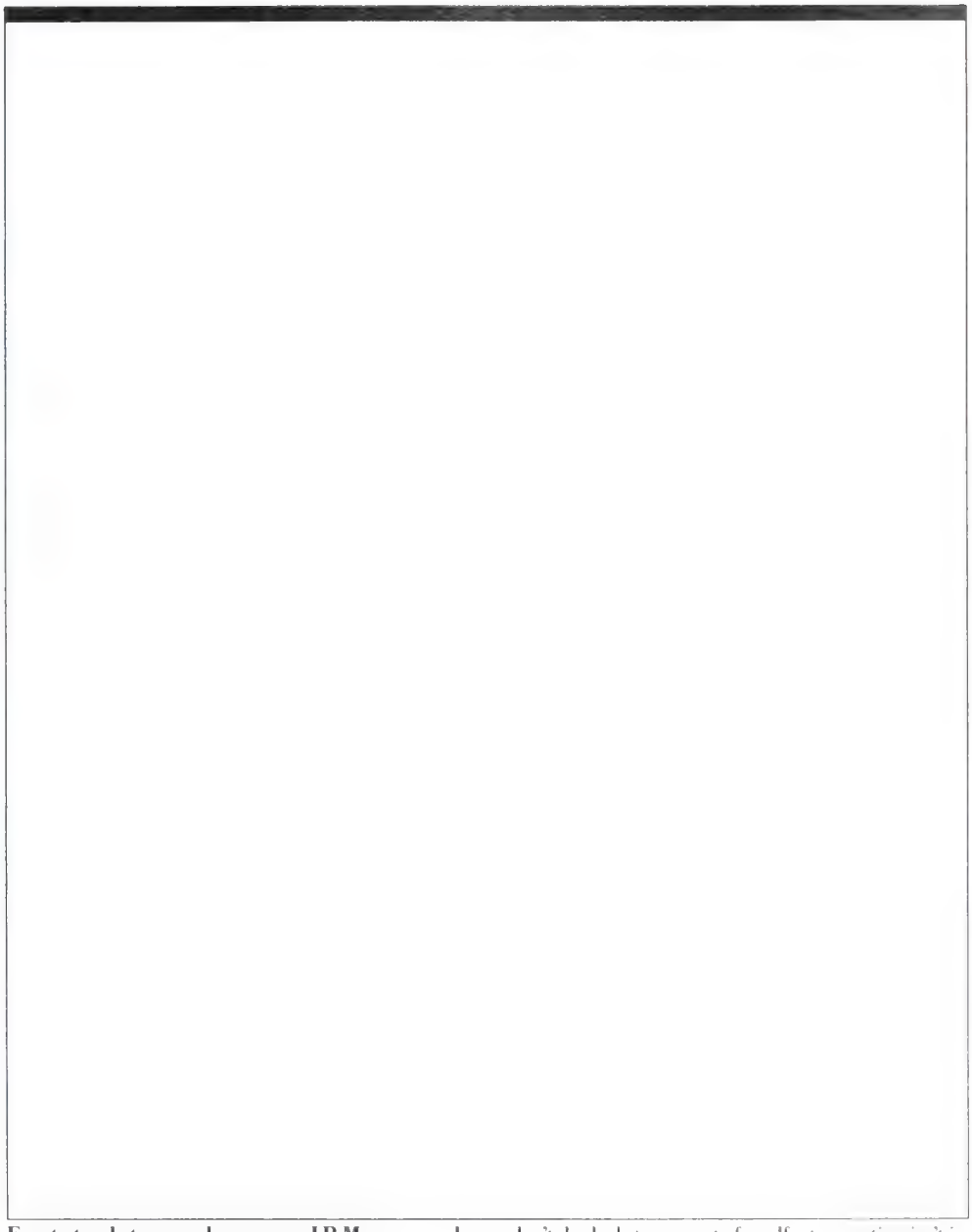

Empty tombstone underscores a J.P. Morgan credo: we don't do deals to generate fees. If a transaction isn't in a client's interests, we'll recommend against it.

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	1 MON EARN PE SH.
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	12 MONTHS ENDING 9-30	10-26	
(b)MACHINE & HAND TOOLS													
GROUP COMPOSITE	**2902.3**	**13**	**8393.1**	**19**	**107.7**	**69**	**332.2**	**16**	**3.7**	**2.5**	**11.8**	**10**	**2.**
Black & Decker	1274.1	22	3502.1	42	18.2	NM	44.3	NM	1.4	NM	2.0	14	0.
Clark Equipment	349.0	1	1078.7	6	13.4	–21	44.5	–5	3.8	4.9	11.3	6	3.
Danaher	229.9**	25	613.5	6	11.8	10	34.0	–2	5.1	5.8	15.4	8	1.
Kennametal (6)	152.1	12	470.0	22	6.9	7	26.5	7	4.5	4.8	14.1	8	3.
Snap-on Tools	227.9**	7	707.8	5	25.2	8	83.5	2	11.1	11.0	17.7	11	2.
SPX	177.0	14	545.9	13	4.5	–29	18.6	–14	2.5	4.1	9.6	9	1.
Stanley Works	492.3	1	1475.3	1	27.7	–4	80.8	–4	5.6	5.9	16.6	11	2.
(c)SPECIAL MACHINERY													
GROUP COMPOSITE	**9302.2**	**7**	**28119.1**	**8**	**310.5**	**–5**	**1070.4**	**–7**	**3.3**	**3.7**	**11.6**	**9**	**3.**
Allied Products	115.3	–15	406.1	–10	–3.4	NM	1.3	–63	NM	NM	–24.9	NM	–5.
Applied Materials (2)	144.2	11	426.1	18	9.5	–24	31.1	–22	6.6	9.6	14.7	8	2.
Briggs & Stratton (6)	160.0	–4	757.2	14	–3.0	NM	30.5	NM	NM	NM	15.1	8	2.
Caterpillar	2795.0	6	8679.0	4	54.0	–50	199.0	–49	1.9	4.1	6.7	13	3.
Commercial Intertech (2)	115.1	7	325.6	2	11.7	82	21.6	31	10.2	6.0	27.0	6	2.
Deere (2)	2054.8**	6	5814.9	11	114.1	16	336.6	22	5.6	5.1	14.4	7	5.
FMC	941.0	12	2741.7	6	35.4	2	128.2	3	3.8	4.2	264.4	6	4.
Goulds Pumps	144.2	6	411.8	8	9.3	6	24.5	2	6.5	6.4	15.1	12	1.
Harnischfeger Industries (2)	429.5	12	1292.7	22	17.2	16	49.4	34	4.0	3.9	11.7	6	2.
Ingersoll-Rand	936.6	11	2770.9	8	40.2	–9	139.7	2	4.3	5.2	13.7	8	3.
Interlake	196.2	–5	599.1	–4	–7.3	NM	–9.2	NM	NM	NM	NM	NM	–0.
Joy Technologies (10)	148.3	17	459.1	15	2.1	NM	4.2	NM	1.4	NM	NM	NA	–9.
Pentair	300.7	0	882.0	0	9.5	19	22.2	–19	3.1	2.7	13.1	9	2.
Stewart & Stevenson Services (11)	160.0	9	493.8	19	7.5	17	23.1	15	4.7	4.4	17.2	14	1.
Terex	239.7	–8	793.2	63	5.2	–9	15.3	5	2.2	2.2	19.6	4	1.
Timken	421.5	18	1265.9	5	8.5	17	53.0	–19	2.0	2.0	4.0	16	1.
(d)TEXTILES													
GROUP COMPOSITE	**2833.6**	**0**	**8614.8**	**–2**	**–25.0**	**NM**	**–49.0**	**NM**	**NM**	**0.9**	**3.5**	**18**	**0.**
Albany International	136.2	13	401.2	9	1.3	–87	7.5	–77	0.9	8.2	8.4	13	0.
Delta Woodside Industries (4)	128.7	8	399.2	–7	2.5	–35	5.9	–74	1.9	3.2	3.6	18	0.
Dixie Yarns	137.2	–1	430.4	–2	2.0	–25	5.4	–46	1.4	1.9	3.9	12	0.
DWG (8)	297.2	–2	930.2	2	–2.3	NM	–11.1	NM	NM	NM	–11.1	NM	–0.
Fieldcrest Cannon	313.5	–8	904.2	–8	–6.2	NM	–11.9	NM	NM	1.3	–1.4	NM	–0.
Guilford Mills (6)	119.6	–10	406.5	–14	3.0	–27	13.5	–38	2.5	3.1	–5.2	NM	–0.
Interface	150.8	7	456.5	6	5.7	–2	17.9	6	3.7	4.1	14.9	6	1.
Shaw Industries (6)	420.4	27	1242.8	32	13.9	–4	50.7	23	3.3	4.3	27.4	8	2.
Springs Industries	452.7	–2	1397.3	–2	–36.0	NM	–17.8	NM	NM	2.9	0.3	NM	0.
Wickes (11)	677.3	–8	2046.5	–14	–8.7	NM	–108.9	NM	NM	NM	–13.7	NA	
16METALS & MINING													
INDUSTRY COMPOSITE	**14343.8**	**0**	**42748.2**	**–4**	**873.5**	**–14**	**2483.9**	**–30**	**6.1**	**7.1**	**12.2**	**10**	**2.**
(a)ALUMINUM													
GROUP COMPOSITE	**5716.7**	**–4**	**17081.2**	**–3**	**315.1**	**–28**	**1000.6**	**–36**	**5.5**	**7.4**	**13.3**	**7**	**5.**
Aluminum Co. of America	2676.1	–6	8003.8	–3	125.1	–43	435.6	–44	4.7	7.7	11.4	8	6
Amax	903.8	–3	2816.4	–6	58.9	4	165.8	–45	6.5	6.1	10.4	7	2
Maxxam	601.2	–7	1783.5	–1	30.3	–20	117.7	64	5.0	5.9	49.8	2	17
Reynolds Metals	1535.6**	1	4477.5	–4	100.8	–19	281.5	–29	6.6	8.1	14.7	8	7
(b)STEEL													
GROUP COMPOSITE	**5635.5**	**–1**	**16724.5**	**–9**	**144.7**	**–44**	**444.7**	**–53**	**2.6**	**4.5**	**6.4**	**13**	**1.**
Acme Steel	115.1	1	341.8	4	2.1	–47	3.2	–78	1.9	3.6	3.3	15	0
Allegheny Ludlum	270.8	1	846.2	–12	17.0	–50	62.9	–40	6.3	12.8	25.5	7	2
Armco†	418.1	–5	1321.2	–34	–4.5	NM	–46.7	NM	NM	7.5	–4.5	NM	–0
Bethlehem Steel	1208.2	–5	3698.9	–10	10.1	–78	53.3	–73	0.8	3.7	4.6	11	1
Birmingham Steel (6)	114.5	–2	337.5	–2	5.3	–32	10.3	–58	4.6	6.7	9.2	10	1
Carpenter Technology (6)	125.4	–6	436.7	–8	6.5	–17	32.9	50	5.2	5.9	13.9	8	4
Commercial Metals (4)	293.8**	–9	856.5	–13	7.2	2	18.9	–6	2.4	2.2	12.9	8	2
Cyclops Industries	299.2	–7	904.6	–12	1.7	–82	–6.0	NM	0.6	3.0	–3.6	NM	–0
Geneva Steel (4)	130.1	–9	NA	NA	10.3	–34	NA	NA	7.9	11.0	34.4	3	3
Inland Steel Industries	959.6	–2	2963.3	–7	–2.2	NM	36.5	–68	NM	1.9	1.4	34	0
Lone Star Technologies	169.5	17	461.5	2	25.4	NM	43.3	NM	15.0	NM	–98.4	NM	–4
Lukens	175.9	5	525.4	7	12.3	6	34.9	26	7.0	7.0	24.9	6	5
Nucor	387.1	26	1114.9	17	21.0	98	54.7	28	5.4	3.5	11.3	19	3
Quanex (2)	169.3	48	479.8	33	7.8	9	18.9	–18	4.6	6.2	15.2	6	1
Weirton Steel	294.7	–7	908.9	–11	3.1	–78	13.6	–35	1.1	4.5	5.8	7	0
Wheeling-Pittsburgh Steel	286.6	–4	830.5	–6	9.8	–71	70.6	–34	3.4	11.3	56.4	0	16
Worthington Industries (7)	217.7	2	696.8	–3	11.8	3	43.5	–9	5.4	5.4	16.1	15	1
(c)OTHER METALS													
GROUP COMPOSITE	**2991.6**	**10**	**8942.5**	**5**	**413.8**	**27**	**1038.6**	**–1**	**13.8**	**11.9**	**16.8**	**12**	**1.**
Asarco	594.3	14	1658.7	–1	59.4	13	145.4	–16	10.0	10.1	13.8	5	4
Cyprus Minerals	493.1	6	1387.9	3	42.2	–38	97.7	–54	8.6	14.7	10.4	5	3
Freeport-McMoRan Copper	135.9	50	323.5	20	33.3	32	71.7	–4	24.5	27.8	71.9	14	1

Footnotes on page 143

through its wholly owned subsidiary, Sabritas S.A. de C.V.,
has acquired 85,518,221 shares at U.S. $3.75 per share,
representing a 79.92% interest in

Empresas Gamesa, S.A. de C.V.

purchased through a tender offer executed on
the Bolsa Mexicana de Valores by

InverMexico, S.A. de C.V.

Morgan Guaranty acted as financial advisor
to PepsiCo, Inc., and assisted in the tender offer

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS				
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30	PRICE-EARNINGS RATIO 10 26	MCI EARN $
Homestake Mining†	123.6**	18	377.1	25	1.7	NM	2.9	NM	1.3	NM	0.9	NM	C
Inspiration Resources	306.7**	9	1205.3	2	–18.0	NM	6.9	–75	NM	NM	1.0	50	C
Magma Copper	202.9	16	589.3	28	27.0	65	60.9	41	13.3	9.4	12.4	2	2
Newmont Gold	160.9	2	490.5	21	36.7	9	116.3	49	22.8	21.3	28.1	25	1
Newmont Mining†	170.1	–2	520.2	19	97.3	426	160.6	712	57.2	10.7	NM	10	3
Phelps Dodge	674.2	4	1999.6	–4	126.2	9	352.0	–14	18.7	17.9	14.0	9	6
Precision Castparts (9)	130.0	17	390.4	15	8.0	11	24.2	12	6.2	6.5	12.5	18	1
17 NONBANK FINANCIAL													
INDUSTRY COMPOSITE	**58162.5**	**2**	**173330.5**	**4**	**2287.6**	**–17**	**7732.4**	**–12**	**3.9**	**4.8**	**11.2**	**9**	**2.**
(a) FINANCIAL SERVICES													
GROUP COMPOSITE	**28300.0**	**2**	**83417.6**	**4**	**1672.0**	**6**	**4277.2**	**–9**	**5.9**	**5.7**	**14.4**	**10**	**2.**
Alexander & Alexander	336.6	13	983.5	7	12.0	50	34.9	–23	3.6	2.7	12.3	16	1
Alleghany	346.1	21	1065.7	30	14.4	–6	52.0	31	4.2	5.3	10.3	7	1
American Express	6063.0**	–7	18031.0	–4	344.0	4	201.0	–78	5.7	5.1	7.8	18	1
Bear Stearns (6)	561.8**	–3	1789.4	–2	18.0	–18	86.2	–22	3.2	3.8	12.1	8	1
Block (H&R) (8)	134.5	6	891.7	16	–5.4	NM	122.5	21	NM	NM	25.1	17	2
Crawford	114.3	16	334.7	24	8.7	17	24.4	17	7.6	7.5	24.1	13	C
Edwards (A. G.) (10)	172.5**	9	489.3	11	15.3	–11	42.2	–2	8.9	10.9	15.8	7	2
Equifax	227.2	7	678.8	10	12.2	14	35.7	14	5.4	5.1	15.5	21	C
Federal Home Loan Mortgage Assn.	998.0	6	2927.0	4	123.0	10	352.0	9	12.3	11.9	24.1	5	7
Federal National Mortgage Assn.	3205.6**	9	9470.2	11	299.5	41	865.7	52	9.3	7.2	31.4	7	4
First Financial Management	231.4**	32	634.5	45	18.0	20	46.1	26	7.8	8.6	12.0	6	2
Loews	3285.5**	18	9360.4	11	271.2	49	687.8	–4	8.3	6.5	17.4	7	11
Marsh & McLennan	681.5**	12	2054.5	12	74.6	2	249.6	4	10.9	12.1	30.4	16	4
Merrill Lynch	2868.8**	1	8401.8	–1	46.1	7	161.5	12	1.6	1.5	–6.9	NM	–2
Morgan Stanley Group	1549.3**	4	4392.6	4	71.9	–29	212.1	–28	4.6	6.8	19.0	5	9
PaineWebber Group	720.7**	0	2280.5	7	9.6	–43	35.0	–15	1.3	2.3	3.4	14	C
Primerica	1503.0**	2	4499.0	9	94.0	20	274.1	42	6.3	5.3	13.4	6	3
Salomon	2573.0**	–2	7019.0	8	79.0	–55	318.0	21	3.1	6.7	11.1	8	2
Schwab (Charles)	164.8**	16	469.2	16	7.2	58	15.7	23	4.4	3.2	13.0	16	C
Student Loan Marketing Assn.	920.7	11	2699.5	11	77.9	18	223.0	18	8.5	7.9	29.6	13	2
Transamerica	1641.6**	–14	4945.4	–5	80.8	–14	237.5	–7	4.9	4.9	10.7	7	3
(b) INSURANCE													
GROUP COMPOSITE	**23992.3**	**3**	**72384.0**	**5**	**598.0**	**–50**	**3417.3**	**–12**	**2.5**	**5.2**	**11.0**	**8**	**4.**
Aetna Life & Casualty	4843.9	–1	14430.6	–1	88.6	–47	472.2	–8	1.8	3.4	8.5	6	5
American Family	683.0	14	1926.7	7	29.8	24	83.7	52	4.4	4.0	14.9	11	1
American General	1144.3	9	3388.3	9	151.1	47	456.1	51	13.2	9.8	13.8	6	4
American International Group	3719.0**	12	10879.4	9	336.8	4	1060.3	4	9.1	9.7	15.7	10	6
American National Insurance	280.8	4	803.5	2	22.8	–22	72.8	–11	8.1	10.8	5.7	9	3
Cigna	4694.0	17	13396.0	16	11.0	–83	211.0	–23	0.2	1.6	7.1	7	5
Hartford Steam Boiler	140.6	12	414.3	13	19.2	1	59.4	2	13.7	15.2	22.4	13	3
Kemper	725.4	4	2180.6	6	37.5	–33	–34.8	NM	5.2	8.0	0.9	69	C
Progressive	348.0**	–2	1035.5	–2	18.1	–24	82.3	6	5.2	6.7	18.2	14	3
Provident Life & Accident	662.3**	5	2009.6	2	50.5	42	129.1	34	7.6	5.6	14.3	4	3
Reliance Group Holdings	862.1	–18	2938.4	4	4.2	NM	172.6	NM	0.5	NM	45.7	1	3
Safeco	808.7**	7	2378.5	9	53.4	–35	185.7	–16	6.6	10.8	14.2	6	4
St. Paul	1005.1	6	2931.3	4	107.2	36	297.9	10	10.7	8.3	20.3	6	9
Torchmark	461.2	12	1334.1	9	61.2	11	182.0	14	13.3	13.4	24.7	10	4
Travelers	2303.1	–24	8543.5	–9	–499.3	NM	–306.0	NM	NM	3.1	–5.1	NM	–1
20th Century Industries	205.4	14	589.5	13	27.0	1	59.2	–14	13.2	14.9	23.7	6	3
UNUM	551.9	11	1569.7	8	46.3	5	140.1	20	8.4	8.8	14.3	7	5
USLico	116.1	8	339.8	9	7.7	–3	20.2	–10	6.6	7.4	9.2	6	2
USLife	307.1	3	913.8	2	17.7	–17	49.1	–18	5.8	7.1	7.5	6	4
Zenith National Insurance	130.6	3	381.1	4	7.2	–30	24.4	–32	5.5	8.1	10.1	7	1
(c) SAVINGS & LOAN													
GROUP COMPOSITE	**5870.2**	**–5**	**17528.7**	**–2**	**17.6**	**NM**	**37.8**	**–75**	**0.3**	**NM**	**1.2**	**34**	**0.**
Ahmanson (H. F.)	1188.6**	4	3482.1	9	61.3	25	183.1	43	5.2	4.3	12.0	5	2
CalFed	479.5**	31	1629.8	–20	–51.2	NM	–91.4	NM	NM	3.8	–4.9	NM	–2
Citadel Holding	134.4**	10	391.1	10	4.9	NM	19.0	318	3.6	NM	10.8	3	6
Coast Savings Financial	278.4**	–9	822.7	–11	–35.6	NM	–60.3	NM	NM	NM	–31.1	NM	–3
CrossLand Savings	281.2**	–23	823.6	–26	–75.4	NM	–251.8	NM	NM	NM	–70.2	NM	–23
Glenfed (6)	599.3**	–8	1842.1	–6	19.6	26	74.3	39	3.3	2.4	9.4	2	3
Golden West Financial	535.8	5	1576.0	10	43.1	3	139.3	19	8.0	8.2	15.3	7	2
Goldome	292.9**	–18	962.0	–1	–3.6	NM	7.3	NM	NM	NM	22.2	1	C
Great Western Financial	1125.3**	12	3155.2	10	37.0	–46	189.4	7	3.3	6.8	5.3	11	C
HomeFed	492.4**	1	1445.3	2	1.9	–92	–71.8	NM	0.4	4.9	–4.0	NM	–1
Northeast Federal (9)	118.0	–30	360.9	–35	1.7	NM	–103.7	NM	1.4	NM	–64.1	NM	–19
Standard Federal Bank	229.0**	–4	682.2	–7	9.9	7	29.5	–17	4.3	3.9	8.6	5	1
TCF Financial	115.4**	–13	355.7	–14	4.1	27	–25.0	NM	3.5	2.4	–16.0	NM	–3

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Roche Holding Ltd

has acquired a 60% interest in and has obtained the option to purchase the remaining 40% of

Genentech, Inc.

Morgan Guaranty assisted in the negotiations and acted as financial advisor to Roche Holding Ltd in this transaction

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30	PRICE-EARNINGS RATIO 10-26	12 MONTHS' EARNINGS PER SHARE
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %			
18 OFFICE EQUIPMENT & COMPUTERS													
INDUSTRY COMPOSITE	**44504.4**	**7**	**132941.5**	**8**	**2031.4**	**27**	**6403.4**	**8**	**4.6**	**3.8**	**9.8**	**15**	**2.37**
(a) **BUSINESS MACHINES, SERVICES & SUPPLIES**													
GROUP COMPOSITE	**2562.4**	**16**	**7487.2**	**18**	**110.4**	**–33**	**424.5**	**–7**	**4.3**	**7.4**	**14.1**	**14**	**1.60**
Deluxe	352.8	6	1026.7	7	44.2	13	118.4	14	12.5	11.8	25.9	15	1.97
Diebold	115.2	5	347.8	2	2.2	–75	17.8	–29	2.0	8.0	7.4	15	2.18
HON Industries	162.5	7	494.5	12	10.8	2	30.5	10	6.6	6.9	24.6	17	0.91
Inacomp Computer Centers (5)	133.6	34	393.2	42	1.5	7	5.5	5	1.1	1.4	14.1	5	0.95
Intelligent Electronics (2)	360.6	111	1063.3	151	7.5	169	20.0	240	2.1	1.6	22.4	7	1.75
Miller (Herman) (7)	232.2	13	656.7	7	10.8	24	35.9	24	4.6	4.2	15.0	9	1.89
Pitney Bowes	799.7	12	2329.6	13	10.4	–82	130.6	–25	1.3	8.3	8.8	19	1.70
Smith Corona (6)	118.7	–22	309.1	–20	6.7	–59	11.3	–61	5.6	10.7	35.7	5	0.79
Standard Register	174.9	0	527.8	1	5.6	–25	23.9	–6	3.2	4.3	11.6	8	1.30
Wallace Computer Services (5)	112.1	2	338.5	4	10.7	7	30.5	5	9.5	9.1	14.2	9	1.86
(b) **COMPUTERS & PERIPHERALS**													
GROUP COMPOSITE	**39564.1**	**6**	**118270.1**	**7**	**1731.5**	**38**	**5206.1**	**7**	**4.4**	**3.4**	**8.9**	**15**	**2.70**
AM International (5)	238.2	4	683.7	4	8.6	–36	–45.1	NM	3.6	5.9	–26.4	NM	–1.00
Amdahl	488.4	–9	1514.3	3	46.4	41	122.6	10	9.5	6.2	13.1	7	1.49
Apple Computer (3)	1354.1	–2	4065.1	5	98.5	–39	350.1	12	7.3	11.6	32.8	8	3.77
AST Research (6)	136.3	19	425.4	21	11.4	300	36.2	801	8.4	2.5	22.6	6	3.32
Commodore International (6)	200.3	21	611.6	10	7.0	NM	3.7	NM	3.5	NM	5.6	14	0.47
Compaq Computer	863.0	26	2597.3	24	123.6	42	320.1	26	14.3	12.8	23.4	10	4.55
Conner Peripherals	380.4	106	919.2	92	40.6	245	82.6	208	10.7	6.4	17.7	11	2.02
Control Data	434.1	–43	1261.3	–48	8.5	–13	26.5	NM	2.0	1.3	–38.5	NM	–4.01
Cray Research	186.6	11	549.5	21	27.6	–10	79.6	118	14.8	14.6	21.4	5	4.59
Dell Computer (11)	121.8	27	352.0	34	6.4	243	12.8	77	5.3	2.0	13.8	16	0.66
Digital Equipment (6)	3093.4	–1	9719.9	0	26.2	–83	–205.6	NM	0.8	4.8	–0.6	NM	–0.40
Dynatech (9)	126.1	24	359.1	18	4.6	16	13.3	64	3.7	3.9	11.2	9	1.61
Everex Systems (5)	116.4	19	338.3	17	7.4	12	20.2	16	6.4	6.8	18.6	4	1.03
Hewlett-Packard (2)	3242.0	8	9653.0	13	178.0	–5	537.0	–8	5.5	6.2	12.9	9	3.27
International Business Machines	15277.0	7	45957.0	9	1112.0	27	3559.0	12	7.3	6.1	10.5	15	7.25
Maxtor (9)	239.6	105	528.3	63	1.6	–66	14.8	77	0.7	4.1	9.9	5	0.92
NCR	1520.0	9	4390.0	5	91.0	–2	258.0	–3	6.0	6.7	22.1	8	5.75
Quantum (9)	192.2	69	484.7	71	18.5	47	48.6	57	9.6	11.1	33.8	9	2.07
Seagate Technology (6)	630.0	66	1974.2	78	13.9	41	71.9	4	2.2	6.2	16.0	4	1.68
Silicon Graphics (6)	115.8	34	346.1	44	9.6	84	29.5	125	8.3	6.0	16.3	11	1.83
Storage Technology	265.2	14	801.4	17	12.1	46	37.2	163	4.6	3.6	12.3	7	2.04
Sun Microsystems (6)	677.0	26	2009.4	37	26.1	403	111.9	601	3.9	1.0	11.3	12	1.40
Tandem Computers (3)	506.1	11	1429.4	15	31.8	–19	91.1	5	6.3	8.6	10.1	9	1.13
Tandy (6)	1090.3	11	3147.3	11	52.2	–17	162.2	–13	4.8	6.4	16.2	7	3.47
Unisys	2400.3	2	7177.4	1	–356.8	NM	–348.2	NM	NM	NM	–20.7	NM	–2.67
Wang Laboratories (6)	571.5	–6	1806.8	–13	2.6	NM	–560.1	NM	0.5	NM	NM	NM	–3.42
Western Digital (6)	255.8	14	836.5	17	1.7	NM	19.9	227	0.6	NM	8.8	6	0.97
Xerox	4500.0**	2	13300.0	2	132.0	–15	383.0	–22	2.9	3.5	10.7	5	5.39
Zenith Electronics	342.3	–9	1032.1	–7	–11.6	NM	–26.8	NM	NM	NM	–6.1	NM	–0.86
(c) **COMPUTER SOFTWARE & SERVICES**													
GROUP COMPOSITE	**2378.0**	**17**	**7184.2**	**18**	**189.5**	**9**	**772.8**	**30**	**8.0**	**8.5**	**20.5**	**16**	**1.54**
Automatic Data Processing (6)	414.3**	3	1310.9	3	41.7	13	166.4	14	10.1	9.2	19.2	17	2.95
Computer Associates International (9)	310.6	10	929.4	–1	27.9	191	98.4	57	9.0	3.4	16.9	7	0.91
Computer Sciences (9)	419.8	13	1245.1	16	13.6	1	51.4	18	3.3	3.6	14.0	10	4.11
Intergraph	256.3	21	740.4	20	12.1	–26	43.6	–23	4.7	7.7	10.0	8	1.33
Lotus Development	157.4	2	498.1	23	8.6	–63	54.8	42	5.4	14.9	25.2	8	1.96
Microsoft (6)	369.4	57	1017.3	56	87.6	77	242.7	78	23.7	21.1	34.5	24	2.61
Novell (2)	131.1	29	357.0	15	26.1	122	61.7	80	19.9	11.6	24.2	21	1.12
Oracle Systems (7)	203.8	16	774.6	42	–36.0	NM	41.3	–40	NM	6.7	19.4	11	0.51
Safeguard Scientifics	115.3	21	311.4	14	7.8	NM	12.4	93	6.8	0.7	18.8	4	2.58
19 PAPER & FOREST PRODUCTS													
INDUSTRY COMPOSITE	**20873.6**	**5**	**61810.7**	**5**	**826.0**	**–39**	**2937.8**	**–29**	**4.0**	**6.8**	**11.0**	**9**	**3.23**
(a) **FOREST PRODUCTS**													
GROUP COMPOSITE	**7823.0**	**5**	**23023.3**	**5**	**255.4**	**–51**	**943.8**	**–37**	**3.3**	**7.0**	**10.1**	**8**	**2.73**
Boise Cascade	1054.0	–3	3170.8	–3	13.9	–78	70.5	–67	1.3	5.8	8.3	7	2.86
Georgia-Pacific	3430.0	30	9608.0	24	95.0	–47	303.0	–40	2.8	6.7	16.0	6	5.38
Louisiana-Pacific	450.9	–12	1427.2	–5	21.2	–59	95.0	–32	4.7	10.1	12.1	5	3.92
Pope & Talbot	141.0	–12	433.8	–7	3.5	–73	23.1	–32	2.5	8.2	15.5	4	2.81
Weyerhaeuser	2263.5	–12	6938.4	–8	90.6	–46	334.9	–29	4.0	6.5	4.2	20	0.92
Willamette Industries	483.6	–1	1445.2	2	31.3	–41	117.3	–16	6.5	10.9	17.5	5	6.64
(b) **PAPER**													
GROUP COMPOSITE	**13050.6**	**6**	**38787.4**	**6**	**570.6**	**–31**	**1994.0**	**–24**	**4.4**	**6.7**	**11.5**	**9**	**3.48**
Bowater	346.6	–4	1027.2	–5	23.7	–33	69.1	–38	6.8	9.8	10.5	7	2.68
Champion International	1293.7	–2	3838.1	–2	62.5	–39	195.7	–41	4.8	7.7	7.5	8	2.97
Chesapeake	215.9	5	642.3	6	3.0	–76	14.9	–60	1.4	6.1	7.9	11	1.23

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Stena AB

through its wholly owned subsidiaries,
Stena Line (U.K.) Limited and
Stena Fantasia (F.L.) Limited

has acquired

Sealink British Ferries Limited

a subsidiary of Sea Containers Ltd.

Morgan Guaranty assisted in the negotiations
and acted as financial advisor to Stena AB

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS				
	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 9-30	PRICE-EARNINGS RATIO 10-26	12 MONTHS' EARNING PER SHARE
Consolidated Papers	236.1	3	714.4	1	33.9	–7	112.3	–9	14.3	16.0	17.7	9	3.58
Fort Howard	299.9	10	858.9	10	–20.4	NM	–76.5	NM	NM	NM	NM	NA	–24.78
Glatfelter (P. H.)	151.6	5	467.0	2	20.2	–8	62.4	–12	13.3	15.3	20.6	10	3.54
International Paper	3300.0	14	9706.0	15	181.0	–16	546.0	–18	5.5	7.5	13.6	7	6.82
James River Corp. of Virginia (8)	1417.1	–4	4372.3	–3	–84.8	NM	13.0	–93	NM	3.9	2.7	28	0.70
Kimberly-Clark	1575.1	8	4761.1	11	123.3	13	320.9	2	7.8	7.5	20.5	14	5.38
Mead	1268.2	6	3638.5	3	39.7	–43	125.3	–32	3.1	5.8	9.2	9	2.48
Potlatch	314.3	–1	962.2	6	24.7	–30	94.1	–3	7.9	11.0	14.9	5	4.63
Scott Paper	1331.5	7	3913.7	4	64.8	–56	199.5	–34	4.9	11.7	12.5	9	3.68
Union Camp	707.8	6	2124.3	2	51.6	–32	177.4	–25	7.3	11.4	13.0	9	3.48
Westvaco (2)	592.9	5	1761.4	5	47.5	–14	139.9	–14	8.0	9.8	12.7	8	3.09
20 PUBLISHING & BROADCASTING													
INDUSTRY COMPOSITE	**12922.7**	**12**	**38852.9**	**17**	**691.0**	**9**	**2129.7**	**–28**	**5.3**	**5.3**	**7.5**	**25**	**1.52**
(a) **BROADCASTING**													
GROUP COMPOSITE	**2667.7**	**11**	**8518.7**	**11**	**194.9**	**28**	**703.6**	**–11**	**7.3**	**6.4**	**14.9**	**17**	**3.52**
American TV & Communications	278.0	14	819.8	14	32.1	35	87.3	27	11.5	9.8	24.6	25	1.04
Capital Cities/ABC	1204.8	10	3834.4	11	71.7	–11	320.3	5	5.9	7.3	14.8	14	28.71
CBS	662.2	12	2341.8	12	43.5	–30	266.8	13	6.6	10.4	12.3	12	12.69
Multimedia	119.8	6	353.6	4	12.9	68	31.6	37	10.8	6.8	NM	15	3.81
Viacom	392.8	14	1169.1	11	34.7	NM	–2.4	NM	8.8	NM	–7.5	NM	–0.30
(b) **PUBLISHING**													
GROUP COMPOSITE	**10255.0**	**12**	**30334.2**	**18**	**496.1**	**4**	**1426.1**	**–34**	**4.8**	**5.2**	**6.4**	**28**	**1.09**
Affiliated Publications	130.4	3	396.2	0	4.0	–52	17.9	–40	3.1	6.7	15.5	15	0.46
Commerce Clearing House	145.9	7	549.4	5	–1.1	NM	40.4	3	NM	NM	14.6	21	2.01
Dow Jones	408.5	1	1277.2	2	23.8	–18	83.5	–70	5.8	7.1	8.8	16	1.22
Dun & Bradstreet	1159.6	11	3505.7	11	139.7	–10	373.0	–17	12.1	14.9	24.0	13	2.78
Gannett	829.9	0	2537.1	–1	79.4	–4	259.7	–4	9.6	10.0	18.8	13	2.41
Houghton Mifflin	178.8	7	345.0	7	26.8	8	26.3	9	15.0	14.9	12.9	12	1.76
Knight-Ridder	570.5	5	1717.2	3	36.6	8	107.0	–14	6.4	6.3	18.4	12	3.15
McGraw-Hill	502.8	11	1380.6	9	67.4	5	121.0	–12	13.4	14.2	2.6	NM	0.47
Media General	151.0	7	457.9	4	7.3	85	22.4	2	4.8	2.8	7.9	23	0.82
Meredith (6)	179.4	4	548.3	3	8.9	68	–36.4	NM	5.0	3.1	–0.6	NM	0.17
New York Times	420.7	1	1320.8	2	9.2	–44	52.6	–40	2.2	4.0	3.1	41	0.45
Readers Digest Association (6)	524.1	19	1548.1	14	50.2	22	129.4	12	9.6	9.3	30.4	16	1.55
Scripps (E. W.)	321.7	6	951.1	3	17.4	–3	27.0	–54	5.4	5.9	9.0	19	0.75
Time Warner	2900.0	32	8226.0	81	–91.0	NM	–193.0	NM	NM	NM	–12.8	NM	–14.28
Times Mirror	895.0**	2	2676.7	4	41.9	–40	134.9	–40	4.7	8.0	11.1	14	1.62
Tribune	588.0	0	1827.8	2	38.2	–39	127.8	–27	6.5	10.6	26.5	13	2.63
Washington Post	348.7	1	1069.2	1	37.5	–16	132.5	–10	10.8	12.9	20.6	12	14.96
21 SERVICE INDUSTRIES													
INDUSTRY COMPOSITE	**15655.3**	**14**	**44794.6**	**13**	**682.5**	**7**	**1975.4**	**9**	**4.4**	**4.6**	**16.0**	**17**	**1.50**
(a) **CONSTRUCTION & ENGINEERING**													
GROUP COMPOSITE	**4385.2**	**13**	**12694.3**	**14**	**87.0**	**–16**	**295.1**	**6**	**2.0**	**2.7**	**12.6**	**18**	**1.60**
Apogee Enterprises (10)	153.5	1	448.4	11	5.2	32	13.3	33	3.4	2.6	15.7	13	1.19
Butler Mfg.	151.0	–8	431.0	–1	3.1	–15	5.9	–34	2.1	2.2	15.4	10	1.48
CRSS (6)	117.7	–16	364.4	–18	2.8	–33	12.1	–9	2.4	3.0	13.1	10	1.17
EG&G	687.0	61	1860.2	52	18.4	12	52.9	4	2.7	3.9	20.3	12	2.52
Fluor (2)	1767.9	14	5475.3	19	32.0	–5	98.2	24	1.8	2.2	15.4	21	1.57
Foster Wheeler	454.2**	46	1166.2	24	7.8	27	27.2	13	1.7	2.0	7.5	19	1.04
Granite Construction	172.8	12	399.3	17	7.1	35	12.1	59	4.1	3.4	15.7	12	1.77
Morrison Knudsen	404.6	–31	1184.1	–27	8.2	4	22.9	7	2.0	1.3	12.9	12	2.89
Wheelabrator Technologies	301.7	29	853.3	19	–4.0	NM	28.7	–32	NM	6.7	7.2	31	1.15
Zurn Industries (9)	174.6	6	512.1	17	6.4	–10	21.8	5	3.7	4.3	12.5	15	2.27
(b) **INDUSTRIAL DISTRIBUTION**													
GROUP COMPOSITE	**4618.4**	**9**	**13392.3**	**6**	**161.9**	**4**	**471.9**	**–3**	**3.5**	**3.7**	**14.0**	**13**	**1.73**
AAR (7)	116.1	7	347.8	7	6.7	2	19.0	–5	5.8	6.0	13.3	7	1.61
Arrow Electronics	246.0	11	734.8	7	2.7	NM	8.2	435	1.1	NM	3.3	11	0.40
Avnet (6)	438.8	0	1320.4	–4	17.7	9	41.2	–12	4.0	3.7	7.5	14	1.61
Bearings (6)	206.0	32	542.0	11	1.1	–74	5.0	–66	0.5	2.7	6.7	12	1.27
Castle (A. M.)	114.8	–2	365.9	–6	0.3	–74	4.6	–38	0.3	1.1	8.0	12	0.80
Genuine Parts	862.3	6	2526.2	5	52.1	4	150.7	4	6.0	6.2	20.2	13	2.65
Getty Petroleum (11)	310.6	8	871.9	4	–1.9	NM	4.5	–77	NM	0.7	10.1	13	0.90
Grainger (W. W.)	503.5	15	1446.6	13	31.5	9	92.5	7	6.3	6.6	15.9	12	4.57
Howell	127.0	78	309.4	51	1.9	114	3.5	44	1.5	1.2	11.8	11	1.22
Marshall Industries (7)	146.5	15	432.0	9	4.9	6	15.7	7	3.4	3.7	14.5	7	2.34
Morgan Products	110.6	–1	323.0	–3	0.5	173	2.1	1	0.4	0.2	–4.3	NM	–0.43
Office Depot	165.3	98	444.7	111	2.5	57	7.0	63	1.5	1.9	8.2	24	0.54
Premier Industrial (7)	159.6	3	476.7	3	19.6	4	56.7	6	12.3	12.2	30.0	18	1.31
TBC	136.4	3	385.5	7	4.8	5	12.5	5	3.5	3.5	23.1	7	1.17
United Stationers (4)	242.2	3	748.5	3	3.1	–22	9.2	–48	1.3	1.7	7.3	11	0.83
Univar (10)	362.1	2	1041.4	1	5.7	1	16.9	13	1.6	1.6	16.5	10	1.27

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY	PRICE-EARNINGS RATIO	12 MONTHS EARNINGS PER SHARE
	3RD QUARTER $ MIL.	CHANGE FROM 1989 %	9 MONTHS $ MIL.	CHANGE FROM 1989 %	3RD QUARTER $ MIL.	CHANGE FROM 1989 %	9 MONTHS $ MIL.	CHANGE FROM 1989 %	3RD QUARTER %	3RD QUARTER 1989 %	12 MONTHS ENDING %		
VWR	112.3	-22	324.0	-26	2.0	35	5.6	10	1.8	1.0	NA	NA	NA
Willcox & Gibbs	145.2	7	423.3	4	3.4	-16	8.2	-37	2.3	3.0	11.5	6	0.95
Wyle Laboratories	113.4	12	328.1	9	3.1	105	8.8	114	2.7	1.5	11.0	9	1.11
(c) **POLLUTION CONTROL GROUP COMPOSITE**	**2019.7**	**30**	**5424.0**	**28**	**244.0**	**26**	**650.4**	**25**	**12.1**	**12.5**	**21.5**	**23**	**1.22**
American Capital & Research (10)	135.7	13	401.6	24	3.3	71	8.9	58	2.4	1.6	18.6	14	0.65
Chemical Waste Management	298.6	23	801.8	23	50.0	24	127.8	23	16.7	16.6	19.4	24	0.82
Waste Management	1585.3	34	4220.6	29	190.8	26	513.7	26	12.0	12.8	22.1	23	1.42
(d) **PRINTING & ADVERTISING GROUP COMPOSITE**	**1818.4**	**12**	**5105.6**	**9**	**91.8**	**5**	**275.6**	**9**	**5.1**	**5.4**	**16.5**	**12**	**2.37**
Advo-System (3)	167.1	0	491.5	6	5.5	18	12.7	84	3.3	2.8	30.6	10	0.95
Banta	155.3	15	434.1	13	8.9	17	22.7	14	5.7	5.6	13.7	10	2.18
Donnelley (R. R.) & Sons	898.3	13	2382.7	7	62.8	0	157.7	3	7.0	7.9	15.0	12	2.90
Interpublic Group	316.0**	12	942.9	8	8.1	16	47.6	10	2.6	2.4	19.6	13	2.23
Omnicom Group	281.6	14	854.4	20	6.7	19	34.9	16	2.4	2.3	19.7	9	2.01
(e) **OTHER SERVICES GROUP COMPOSITE**	**2813.7**	**16**	**8178.4**	**16**	**97.7**	**3**	**282.4**	**4**	**3.5**	**3.9**	**14.4**	**15**	**1.26**
Adia Services	170.9**	10	498.5	12	5.0	-10	14.9	-6	2.9	3.5	11.0	9	1.56
Air & Water Technologies (2)	163.4	5	432.3	-5	4.1	-14	3.9	236	2.5	3.1	-2.0	NM	-0.39
American Building Maintenance (2)	173.7	6	502.6	6	2.8	12	6.6	13	1.6	1.5	12.4	12	2.40
CDI	236.7	4	699.0	7	2.3	-63	10.6	-35	1.0	2.7	14.2	8	0.76
Handleman (8)	146.2	15	530.5	12	5.1	11	22.8	-24	3.5	4.5	16.3	8	1.11
JWP	744.6	45	2047.6	49	16.0	25	43.2	32	2.2	2.5	15.9	12	1.49
Kelly Services	386.1	8	1128.7	8	20.9	2	54.9	1	5.4	5.8	23.2	12	2.38
Olsten	157.5**	6	456.5	5	4.2	-23	12.3	-13	2.7	3.6	16.4	8	1.04
Rollins	113.0	7	334.5	6	7.5	22	23.3	18	6.6	5.8	31.6	16	1.14
Safety-Kleen	136.6	24	395.1	23	12.1	20	35.3	15	8.8	9.1	16.8	24	1.48
Service Corp. International	129.0	4	418.7	9	13.0	47	48.4	15	10.1	7.1	12.0	17	1.15
Volt Information Sciences (2)	121.8	4	367.2	9	2.9	-36	1.3	-76	2.4	3.9	2.9	23	0.42
Wackenhut	134.1	12	387.3	13	4.9	10	4.9	19	1.4	1.4	18.7	11	1.72
22 **TELECOMMUNICATIONS INDUSTRY COMPOSITE**	**41335.4**	**6**	**121550.2**	**5**	**3457.9**	**-7**	**11518.6**	**7**	**8.4**	**9.5**	**14.9**	**14**	**2.72**
(a) **EQUIPMENT & SERVICES GROUP COMPOSITE**	**14312.4**	**9**	**41564.7**	**7**	**614.0**	**-37**	**3152.1**	**19**	**4.3**	**7.4**	**18.5**	**13**	**2.17**
American Telephone & Telegraph	9355.0	5	27272.0	2	712.0	2	2037.0	2	7.6	7.9	20.5	13	2.52
Communications Satellite	112.4	1	339.9	9	12.3	-39	50.0	-9	10.9	18.1	9.3	8	3.05
DSC Communications	127.4	20	364.7	21	5.2	-39	20.9	-4	4.1	7.9	12.7	7	0.78
McCaw Cellular Communications	280.5	116	738.1	110	-61.2	NM	539.0	NM	NM	NM	20.5	5	2.51
MCI Communications	2003.0	20	5677.0	19	-168.0	NM	172.0	-63	NM	9.9	12.2	27	1.12
Pacific Telecom	204.4	19	527.3	8	18.5	-19	64.6	21	9.1	13.4	16.4	11	2.20
Scientific-Atlanta (6)	128.4	1	450.6	3	5.5	-37	30.7	5	4.3	6.1	14.7	7	1.77
United Telecommunications	2101.3	9	6195.1	12	89.7	-5	237.9	-9	4.3	4.9	15.4	16	1.58
(b) **TELEPHONE COMPANIES GROUP COMPOSITE**	**27023.0**	**5**	**79985.5**	**5**	**2843.8**	**4**	**8366.5**	**3**	**10.5**	**10.6**	**13.9**	**15**	**3.00**
Alltel	397.1	8	1170.3	10	46.8	14	137.1	8	11.8	11.1	17.4	13	2.26
Ameritech	2668.7	4	7968.0	5	311.2	8	967.0	7	11.7	11.3	17.0	13	4.86
Bell Atlantic	3098.7	7	9192.8	7	358.4	4	1076.5	6	11.6	11.8	13.0	17	2.88
BellSouth	3551.1	0	10695.1	3	402.9	-6	1271.3	4	11.3	12.0	13.8	14	3.61
Centel	334.7	1	990.4	12	20.1	NM	52.7	NM	6.0	NM	5.8	36	0.71
Cincinnati Bell	263.2	18	729.8	8	23.5	2	65.7	-8	8.9	10.3	16.5	14	1.40
Contel	884.0	13	2525.0	11	31.0	-54	128.0	-36	3.5	8.7	12.3	26	1.29
GTE	4554.0	5	13634.2	7	408.8	1	1127.7	10	9.0	8.4	10.9	12	2.23
Nynex	3395.1	3	10164.1	3	296.7	3	888.7	4	8.7	8.7	9.3	16	4.25
Pacific Telesis Group	2468.0	4	7275.0	2	285.0	3	834.0	-9	11.5	11.7	15.5	15	2.88
Rochester Telephone	150.2	3	441.6	3	12.5	-7	36.6	-14	8.3	9.2	13.4	16	1.73
Southern New England Telecomms.	407.9**	-4	1213.2	-3	20.7	-52	96.4	-35	5.1	10.1	12.3	13	2.25
Southwestern Bell	2367.7	7	6666.6	4	323.6	10	833.9	5	13.7	13.4	13.4	14	3.76
US West	2482.6	7	7319.5	2	302.6	17	850.9	11	12.2	11.1	13.2	12	3.14
23 **TRANSPORTATION INDUSTRY COMPOSITE**	**27143.6**	**9**	**78853.2**	**8**	**715.1**	**-34**	**2128.2**	**-41**	**2.6**	**4.4**	**6.4**	**17**	**1.76**
(a) **AIRLINES GROUP COMPOSITE**	**11007.3**	**11**	**31562.6**	**8**	**3.1**	**-99**	**221.4**	**-83**	**0.0**	**3.6**	**1.4**	**66**	**0.55**
Alaska Air Group	295.7	10	789.8	14	19.7	-16	27.3	-33	6.7	8.7	8.7	9	1.82
America West Airlines	338.7	39	969.6	36	-20.7	NM	-18.4	NM	NM	1.5	-20.1	NM	-0.92
AMR	3054.7	12	8717.3	10	65.6	-52	175.5	-58	2.1	5.0	5.4	14	3.37
Delta Air Lines (6)	2217.5	2	6577.8	1	-51.6	NM	53.8	-87	NM	6.1	3.8	30	1.93
Midway Airlines	166.6	37	494.4	35	-18.7	NM	-53.1	NM	NM	NM	NM	NM	-8.24
Southwest Airlines	316.4	19	885.2	17	23.0	-6	51.7	-19	7.3	9.2	10.1	12	1.38
UAL	2973.4	15	8233.7	11	106.1	-4	218.0	-31	3.6	4.3	13.4	9	10.32
USAir Group	1644.4	7	4894.9	3	-120.3	NM	-233.4	NM	NM	NM	-20.7	NM	-8.28

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CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY 12 MONTHS ENDING 9 30	PRICE-EARNINGS RATIO 10-26	MO EAR
	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %			SH
(b) **RAILROADS**													
GROUP COMPOSITE	**7942.8**	**6**	**23428.9**	**4**	**567.3**	**–3**	**1459.9**	**–10**	**7.1**	**7.9**	**9.6**	**13**	**2.**
Burlington Northern	1155.0	1	3510.0	2	58.0	–20	184.0	14	5.0	6.3	22.4	7	3
Consolidated Rail	847.0	1	2531.0	–2	72.0	–17	171.0	–25	8.5	10.4	3.2	16	2
CSX	2063.0	9	6018.0	5	101.0	7	236.0	–22	4.9	5.0	10.4	8	3
Kansas City Southern Industries	136.2	6	395.8	5	13.8	24	32.0	3	10.1	8.6	10.8	11	3
Norfolk Southern	1175.0	3	3492.7	2	142.9	–5	439.0	–4	12.2	13.2	11.6	10	3
Santa Fe Pacific	713.6	–3	2118.4	–1	18.6	–45	–44.1	NM	2.6	4.6	–26.7	NM	–1
Union Pacific	1853.0	17	5363.0	13	161.0	18	442.0	4	8.7	8.7	15.1	11	6
(c) **TRANSPORTATION SERVICES**													
GROUP COMPOSITE	**4607.6**	**12**	**13380.9**	**13**	**124.0**	**145**	**310.3**	**16**	**2.7**	**1.2**	**8.7**	**11**	**1.**
Airborne Freight	302.2	27	864.9	26	10.6	100	27.7	124	3.5	2.2	17.8	8	1
Federal Express (7)	1916.5	16	5560.0	21	43.1	42	91.4	–5	2.2	1.8	7.8	14	2
Gatx	224.8**	24	628.5	24	20.8	17	58.6	16	9.3	9.8	11.5	6	3
PHH (8)	493.9	9	1479.0	10	11.9	–11	44.3	7	2.4	3.0	14.8	6	3
Ryder System	1352.3	6	3912.2	3	28.3	NM	67.7	118	2.1	NM	5.7	12	1
Trinity Industries (9)	317.8	1	936.4	–1	9.3	–18	20.7	–43	2.9	3.6	8.6	12	1
(d) **TRUCKING & SHIPPING**													
GROUP COMPOSITE	**3585.9**	**6**	**10480.8**	**6**	**20.7**	**–78**	**136.6**	**–65**	**0.6**	**2.8**	**2.8**	**40**	**0.**
Alexander & Baldwin	192.2**	3	566.4	–16	22.2	–24	91.8	–51	11.5	15.6	16.8	8	2
American President	539.2**	–1	1636.6	0	–60.6	NM	–61.6	NM	NM	1.5	–13.6	NM	3
Carolina Freight	171.3	13	499.2	9	1.6	50	1.7	–64	0.9	0.7	–1.5	NM	–0
Consolidated Freightways	1078.7	7	3120.7	13	11.4	7	–26.1	NM	1.1	1.1	–12.5	NM	–2
Hunt (J. B.) Transport Services	142.3	5	420.5	11	8.7	–7	23.3	5	6.1	7.0	16.9	11	1
Preston	171.5	11	499.9	8	–19.5	NM	–18.4	NM	NM	0.1	–20.6	NM	–3
Roadway Services	703.5	13	2013.0	12	34.5	46	73.8	13	4.9	3.8	13 7	12	2
Yellow Freight System	587.1	4	1724.6	4	22.3	94	52.2	14	3.8	2.0	5.6	24	0
24 **UTILITIES**													
INDUSTRY COMPOSITE	**49074.3**	**8**	**136473.2**	**5**	**5567.9**	**8**	**12507.6**	**–5**	**11.3**	**11.3**	**10.2**	**12**	**2.**
(a) **ELECTRIC**													
GROUP COMPOSITE	**41725.9**	**6**	**112992.4**	**4**	**5497.9**	**5**	**12112.0**	**–5**	**13.2**	**13.3**	**10.4**	**12**	**2.**
Allegheny Power System	559.1	4	1738.0	3	46.3	–4	158.3	–3	8.3	9.0	11.8	10	3
American Electric Power	1333.0	3	3891.7	4	142.7	–20	428.2	–14	10.7	13.8	13.6	9	2
Atlantic Energy	218.9	6	550.8	4	40.4	–2	71.9	–3	18.5	19.9	12.2	10	3
Baltimore Gas & Electric	632.9	13	1675.0	10	109.2	–7	183.2	-21	17.3	21.0	9.3	12	2
Boston Edison	353.9	–8	933.2	–3	56.9	–3	69.6	–3	16.1	15.4	–5.0	NM	–0
Carolina Power & Light	762.7	7	1953.6	4	153.9	11	253.6	–20	20.2	19.4	12.4	13	3
Centerior Energy	673.0	6	1811.1	2	115.4	–8	252.3	–17	17.1	19.6	8.0	11	3
Central & South West	866.0	13	2074.0	7	145.0	8	244.0	–16	16.7	17.5	10.0	11	3
Central Maine Power	177.6	7	569.9	11	9.9	15	34.8	5	5.6	5.2	11.2	10	1
Cincinnati Gas & Electric	342.6	8	1056.2	2	62.4	–2	169.2	–3	18.2	20.1	15.7	7	2
Cipsco	171.7	8	453.3	1	38.2	5	59.7	4	22.2	22.7	11.6	11	1
Commonwealth Edison	1724.1	–2	3949.2	–11	334.0	–8	42.7	–93	19.4	20.4	0.0	NM	–0
Commonwealth Energy System	183.4	6	598.3	4	2.6	47	16.9	–33	1.4	1.0	10.2	10	1
Consolidated Edison Co. of N. Y.	1613.8	2	4371.7	5	263.3	–7	450.4	–10	16.3	17.9	11.9	10	2
Delmarva Power & Light	227.9	5	632.0	5	35.1	–3	72.0	–3	15.4	16.8	12.4	11	3
Detroit Edison	893.4	4	2505.2	4	149.1	7	403.5	19	16.7	16.2	17.8	9	3
Dominion Resources	997.6**	1	2716.2	–2	174.6	8	416.7	25	17.5	16.4	14.1	10	3
DPL	213.4	6	695.8	1	40.3	29	129.1	8	18.9	15 4	14.0	9	3
Duke Power	1105.0	9	2830.8	3	213.8	10	457.7	2	19.3	19.3	14.2	12	3
Entergy	1227.2	11	3056.0	8	225.4	NM	455.4	NM	18.4	NM	10.0	9	2
Florida Progress	591.8	7	1529.9	7	76.7	–1	158.5	–6	13.0	14.0	12.6	11	3
FPL Group	1774.5	–2	4707.3	0	–557.7	NM	–399.2	NM	NM	9.4	–10.3	NM	–
General Public Utilities	817.1	6	2268.7	3	110.1	1	255.5	0	13.5	14.0	13.3	9	1
Gulf States Utilities	488.2	5	1284.4	5	60.5	196	–48.1	NM	12.4	4.4	–5.9	NM	–
Hawaiian Electric Industries	243.5	1	735.3	12	18.4	–7	47.0	–14	7.5	8.2	10.9	11	1
Houston Industries	1279.2	12	3171.2	9	221.1	44	313.6	–1	17.3	13.4	11.4	11	2
Illinois Power	425.5	9	1046.5	5	80.7	29	71.3	NM	19.0	15.9	2.2	30	1
Ipalco Enterprises	167.0	5	463.6	3	31.5	–9	82.9	4	18.9	21.7	13.6	10	3
Kansas Gas & Electric	179.7	9	448.4	9	34.2	13	52.1	12	19.0	18.3	8.7	14	2
Kentucky Utilities	151.3	12	414.8	5	23.9	9	62.1	5	15.8	16.1	14 9	9	2
LG&E Energy	187.2	6	527.4	3	34.1	4	70.6	–4	18.2	18.6	10.1	13	3
Montana Power	174.0	3	590.2	5	7.6	–2	55.0	10	4.4	4.6	9.9	13	2
New England Electric System	476.3	15	1383.6	14	165.3	363	237.3	128	34.7	8.6	22.1	6	1
New York State Electric & Gas	330.3	3	1135.6	5	22.2	–16	135.9	2	6.7	8.3	11.5	9	5
Niagara Mohawk Power	682.1	11	2373.4	9	60.1	66	187.7	32	8.8	5.9	7.6	11	3
Nipsco Industries	317.8	0	1097.4	–1	27.9	20	94.7	–2	8.8	7.3	12.5	17	2
Northeast Utilities	600.9	7	1725.0	6	77.1	17	206.9	12	12.8	11.7	12.2	10	1
Northern States Power	554.9	15	1633.3	10	84.8	16	199.2	10	15.3	15.2	14.1	9	5
Ohio Edison	572.8	4	1655.4	3	71.6	–29	256.6	–11	12.5	18.3	11.7	8	8
Oklahoma Gas & Electric	386.3	8	952.3	10	73.3	8	118.9	11	19.0	19.0	15.6	11	1

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Eastman Kodak Company, 1990

We'll "go to the ends of the earth" to keep you completely satisfied with your Kodak copiers. And, with our 13-point Kodak Guarantee, that's going pretty far.

Actually, we're not quite sure where the ends of the earth are, but we really will do whatever it takes to make you a satisfied Kodak copier customer. The Kodak Guarantee assures you of total satisfaction beginning with the delivery of your copier, including a 24-hour 7-day hot line, a service history your doctor might envy, and a copier that grows new instead of old. Your Kodak representative has all the details.

Not all of us are intrepid explorers, but every Kodak copier representative is an expert at satisfying customers. Put us to the test. Call our Customer Satisfaction Center at 1 800 255-3434, Ext. 155.

THE ENDS OF THE EARTH COPIER GUARANTEE FROM KODAK

Kodak copiers. Ask any customer.

CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS		RETURN ON COMMON EQUITY 12 MONTHS ENDING 9 30	PRICE-EARNINGS RATIO 10-26	MO EAR
	3RD QUARTER 1990 $ Mil.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	3RD QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	9 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	3RD QUARTER 1990 %	3RD QUARTER 1989 %			Si
Pacific Gas & Electric	2597.7	16	7018.1	9	394.2	24	770.8	–3	15.2	14.1	10.7	13	1
PacifiCorp	964.9	5	2785.9	2	109.4	–2	336.3	–2	11.3	12.2	15.1	12	1
Pennsylvania Power & Light	578.9	6	1771.8	5	82.9	4	257.3	5	14.3	14.5	14.6	10	4
Philadelphia Electric	1012.0	13	2807.4	10	15.9	–92	76.3	–83	1.6	23.0	3.2	30	0
Pinnacle West Capital	474.6	2	1248.5	4	63.2	–16	94.1	–45	13.3	16.2	3.4	20	0
Portland General	188.0	4	612.8	7	35.2	329	80.6	46	18.7	4.5	2.0	49	0
Potomac Electric Power	509.5	7	1104.8	0	114.6	2	150.8	–16	22.5	23.4	12.2	11	1
PSI Resources	257.0	–6	748.2	-5	35.6	10	102.8	–11	13.9	11.8	18.9	7	2
Public Service Co. of Colorado	347.3	–9	1214.8	–8	34.3	46	106.7	0	9.9	6.1	14.6	8	2
Public Service Enterprise Group	1190.0	3	3589.2	3	189.2	4	446.6	–4	15.9	15.8	12.4	10	2
Puget Sound Power & Light	194.9	6	667.9	3	18.4	–12	95.5	–1	9.5	11.3	11.3	11	1
Rochester Gas & Electric	187.5	2	610.5	0	15.6	–15	41.7	–16	8.3	10.1	10.0	10	1
San Diego Gas & Electric	452.1	7	1301.2	5	54.7	2	159.8	21	12.1	12.6	15.9	12	3
Scana	308.0	3	856.0	2	56.5	20	120.7	14	18.3	15.7	14.8	10	3
SCEcorp	2257.6	3	5443.2	3	296.7	–28	637.4	–8	13.1	18.9	13.2	12	3
Southern	2437.6	13	6123.6	7	216.7	–44	604.4	–28	8.9	18.0	9.1	13	1
Southwestern Public Service (4)	211.9	–7	567.8	–8	34.9	3	81.2	–4	16.5	15.0	17.3	10	2
Teco Energy	309.1	6	823.6	2	46.2	–1	113.8	2	14.9	16.1	16.4	12	2
Texas Utilities	1412.5	9	3394.7	3	374.5	20	842.4	25	26.5	24.2	13.8	7	4
Union Electric	653 9	6	1601.5	3	154.3	12	278.1	16	23.6	22.3	15.7	9	3
United Illuminating	162.1	4	424.7	3	23.2	NM	41.9	NM	14.3	NM	12.2	9	3
Wisconsin Energy	341.2	–2	1070.4	–3	49.8	–6	144.8	–4	14.6	15.1	13.9	11	2
(b) **GAS & TRANSMISSION GROUP COMPOSITE**	**7348.4**	**17**	**23480.8**	**10**	**70.0**	**NM**	**395.7**	**–15**	**1.0**	**NM**	**7.7**	**21**	**1.**
Arkla	410.3	0	1617.5	7	2.3	NM	66.1	NM	0.6	NM	21.3	14	1
Eastern Enterprises	181.5	13	708.1	15	–0.1	NM	49.5	18	NM	NM	12.1	9	2
Enron	3139.5	48	8459.6	19	14.0	5	148.9	33	0.4	0.6	14.8	13	4
Enserch	641.7	2	2022.0	4	–3.3	NM	47.1	0	NM	1.1	7.9	28	0
Nicor	172.4	5	1072.7	–3	10.2	168	74.4	1	5.9	2.3	18.1	11	4
Pacific Enterprises	1634.0	4	5144.0	3	61.0	22	–96.0	NM	3.7	3.2	–4.8	NM	–1
Panhandle Eastern	522.3	–19	2122.7	44	–13.5	NM	18.0	–36	NM	0.0	4.2	18	0
Sonat	297.7	6	1054.1	–21	14.7	–6	62.9	–27	4.9	5.6	7.5	25	2
Williams	348.9	7	1280.1	9	–15.3	NM	24.8	–15	NM	1.5	3.6	30	0

ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

A

A&P **10c**
AAR **21b**
Abbott Laboratories **12d**
Acme Steel **16b**
Adia Services **21e**
Advanced Micro **9d**
Advo-System **21d**
Aetna Life & Casualty **17b**
Affiliated Pubs **20b**
Ahmanson (H. F.) **17c**
Air & Water Techs **21e**
Air Products & Chemicals **4**
Airborne Freight **23c**
Alaska Air Group **23a**
Albany International **15d**
Alberto-Culver **6d**
Albertson's **10c**
Alcoa **16a**
Alexander & Alex **17a**
Alexander & Baldwin **23d**
Allegheny **17a**
Allegheny Ludlum **16b**
Allegheny Power **24a**
Allergan **12b**
Allied Products **15c**
Allied Signal **5**
Alltel **22b**
AM International **18b**
Amax **16a**
Amdahl **18b**
Amerada Hess **11b**
America West **23a**
American Brands **6e**
American Building **21e**
American Capital **21c**
American Cyanamid **4**
American Electric **24a**
American Express **17a**
American Family **17b**
American General **17b**
American Greetings **14d**
American Home **12b**
American Intl. Group **17b**
American Maize **10b**
American National **17b**
American Petrofina **11b**
American President **23d**
American Stores **10c**
American TV **20a**
Amentech **22b**
AmeriTrust **3b**
Ameron **13a**
Ames Dept. Stores **8**
Ametek **9c**
Amoco **11b**
AMP **9d**
AMR **23a**
Analog Devices **9d**
Anheuser-Busch **6c**
Apogee Enterprises **21a**
Apple Computer **18b**
Applied Materials **15c**
Arco Chemical **4**
Arkla **24b**
Armco **16b**
Armstrong World **6b**
Arrow Electronics **21b**
Arvin Industries **2b**
Asarco **16c**
Ashland Oil **11b**
AST Research **18b**
AT&T **22a**
Atlantic Energy **24a**
Atlantic Richfield **11b**
Automatic Data **18c**
Avery Dennison **15a**
Avnet **21b**
Avon Products **6d**
Aztar **14c**

B

Baker (J.) **8**
Ball **7a**
Baltimore G&E **24a**
Banc One **3b**
Bandag **2c**
Bank of Boston **3a**
Bank of New England **3a**
Bank of New York **3a**
BankAmerica **3d**
Bankers Trust New York **3a**
Banta **21d**
Bard (C. R.) **12a**
Barnes Group **13a**
Barnett Banks **3c**
Baroid **11c**
Bausch & Lomb **12d**
Baxter International **12d**
BayBanks **3a**
Bear Stearns **17a**
Bearings **21b**
Beckman Instruments **9c**
Bell Atlantic **22b**
BellSouth **22b**
Bemis **7b**
Bergen Brunswig **12a**
Best Products **8**
Bethlehem Steel **16b**
Betz Laboratories **4**
Beverly Enterprises **12c**
Bindley Western **12a**
Birmingham Steel **16b**
Black & Decker **15b**
Blair **8**
Block (H&R) **17a**
Block Drug **6d**
Blockbuster Ent **14b**
Blount **15a**
Boatmen's Bancshares **3b**
Bob Evans Farms **14a**
Boeing **1**
Boise Cascade **19a**
Borden **10b**
Boston Edison **24a**
Bowater **19b**
Briggs & Stratton **15c**
Bristol-Myers Squibb **12b**
Brown Group **6a**
Brown-Forman **6c**
Bruno's **10c**
Brunswick **14d**
Burlington Northern **23b**
Burlington Resources **11b**
Butler Mfg. **21a**

C

C&S/Sovran **3c**
Caesars World **14c**
CalFed **17c**
CalMat **13a**
Campbell Soup **10b**
Capital Cities/ABC **20a**
Cardinal Distribution **12a**
Carlisle **2c**
Carnival Cruise Lines **14d**
Carolina Freight **23d**
Carolina Power **24a**
Carpenter Tech. **16b**
Carter Hawley Hale **8**
Carter-Wallace **12b**
Casey's General **10c**
Castle & Cooke **10b**
Castle (A. M.) **21b**
Caterpillar **15c**
CBS **20a**
CDI **21e**
Centel **22b**
Centerior Energy **24a**
Centex **13b**
Central & South West **24a**
Central Maine Power **24a**
Champion Intl. **19b**
Charming Shoppes **8**
Chase Manhattan **3a**
Chemed **6d**
Chemical Banking **3a**
Chemical Waste **21c**
Chesapeake **19b**
Chevron **11b**
Child World **8**
Chrysler **2a**
Cigna **17b**
Cincinnati Bell **22b**
Cincinnati G&E **24a**
Cipsco **24a**
Circle K **10c**
Circuit City Stores **6b**
Circus Circus **14c**
Citadel Holding **17c**
Citicorp **3a**
Clark Equipment **15b**
Clorox **6d**
Coast Savings **17c**
Coastal **11b**
Coca-Cola **6c**
Coca-Cola Bottling **6c**
Coca-Cola Enterprises **6c**
Colgate-Palmolive **6d**
Collins Foods **14a**
Comerica **3b**
Commerce Clearing **20b**
Commercial Intertech **15c**
Commercial Metals **16b**
Commodore Intl. **18b**
Commonwealth Ed **24a**
Comm Energy **24a**
Commtron **14b**
Compaq Computer **18b**
Computer Associates **18c**
Computer Sciences **18c**
Comsat **22a**
ConAgra **10b**
Conner Peripherals **18b**
Consolidated Edison **24a**
Cons. Freightways **23d**
Consolidated Papers **19b**
Consolidated Rail **23b**
Consolidated Stores **8**
Constar International **7a**
Contel **22b**
Continental Bank **3b**
Control Data **18b**
Cooper Industries **9a**
Cooper Tire & Rubber **2c**
CoreStates Financial **3a**
Corning **15a**
Costco Wholesale **8**
CPC International **10b**
Crane **15a**
Crawford **17a**
Cray Research **18b**
Crestar Financial **3c**
CrossLand Savings **17c**
Crown Central **11b**
Crown Cork & Seal **7a**
CRSS **21a**
Crystal Brands **6a**
CSX **23b**
Cummins Engine **2b**
Cyclops Industries **16b**
Cyprus Minerals **16c**

D

Dairy Mart **10c**
Dana **2b**
Danaher **15b**
Dart Group **5**
Dayton Hudson **8**
Dean Foods **10b**
Deere **15c**
Delchamps **10c**
Dell Computer **18b**
Delmarva Power **24a**
Delta Air Lines **23a**
Delta Woodside **15d**
Deluxe **18a**
Detroit Edison **24a**
Dexter **4**
Diamond Shamrock **11b**
Diebold **18a**
Digital Equipment **18b**
Dillard **8**
Dixie Yarns **15d**
Dollar General **8**
Dominion Resources **24a**
Donnelley (R. R.) **21d**
Dow Chemical **4**
Dow Jones **20b**
DPL **24a**
Dresser Industries **11c**
Drug Emporium **12a**
DSC Communs. **22a**
Du Pont **4**
Duke Power **24a**
Dun & Bradstreet
Durr-Fillauer Medi
DWG **15d**
Dynatech **18b**

E

E-Systems **9b**
Eagle Food Cente
Eagle-Picher Indu
Eastern Enterprise
Eastman Kodak **1**
Eaton **2b**
Echlin **2b**
Eckerd (Jack) **12c**
Ecolab **6d**
Edwards (A. G.) **1**
EG&G **21a**
Engelhard **4**
Enron **24b**
Enserch **24b**
Entergy **24a**
Equifax **17a**
Equitable of Iowa
Ethyl **4**
Everex Systems **1**
Exxon **11b**

F

Family Dollar Stor
Fay's **12a**
Federal Express **2**
Federal Home Loa
Federal Natl. Mtg
Federal Paper Boa
Federal-Mogul **2**
Ferro **4**

Continued on

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TEAM WORK

E COOPERATION OF 5 COUNTRIES HAS
SURED EFFICIENCY ON THE GROUND
D RELIABILITY IN THE AIR: AIRBUS WAS
GNED AND EQUIPPED THROUGH THE COOPERATION AND
NERSHIP OF 4 EUROPEAN COUNTRIES AND THE U.S.A. THE
NES AND AVIONICS FOR EXAMPLE, ARE PARTLY DESIGNED
BUILT IN COOPERATION WITH THE AMERICANS. AIRBUS
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ICAN, BRANIFF, CANADIAN INTERNATIONAL, CONTINENTAL,
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COLORS. THE QUALITY OF THE WORK AND THE ORIGINALITY
E CREATIVE EFFORT KEEPS US UP THERE — MEET THE TEAM.

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PHONE: 202 293 0650

ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

Cont. from p. 172

FHP International **12c**
Fieldcrest Cannon **15d**
Figgie International **5**
First Bank System **3b**
First Chicago **3b**
First City Bancorp **3d**
First Fidelity **3a**
First Financial Mgmt. **17a**
First Interstate Bancorp **3d**
First Mississippi **4**
First of America Bank **3b**
First Union **3c**
First Wachovia **3c**
Fleet/Norstar **3a**
Fleetwood Ents. **14d**
Fleming **10a**
Florida Progress **24a**
Flowers Industries **10b**
Fluor **21a**
FMC **15c**
Food Lion **10c**
Foodarama **10c**
Ford Motor **2a**
Fort Howard **19b**
Foster Wheeler **21a**
FPL Group **24a**
Freeport McMoRan **4**
Freeport Copper **16c**
Fuller (H. B.) **4**
Fuqua Industries **5**

G

Gannett **20b**
Gap **8**
Gatx **23c**
GenCorp **1**
General Cinema **5**
General Dynamics **1**
General Electric **5**
General Host **5**
General Mills **10b**
General Motors **2a**
General Public Uts **24a**
General Signal **9c**
Genesco **8**
Geneva Steel **16b**
Genlyte Group **9a**
Genuine Parts **21b**
Georgia Gulf **4**
Georgia Pacific **19a**
Gerber Products **10b**
Getty Petroleum **21b**
Giant Food **10c**
Gillette **6d**
Glatfelter (P. H.) **19b**
Glenfed **17c**
Golden Nugget **14c**
Golden West **17c**
Goldome **17c**
Goodrich (B. F.) **4**
Goodyear Tire & Rubber **2c**
Goulds Pumps **15c**
Grace (W. R.) **4**
Grace Energy **11c**
Grainger (W. W.) **21b**
Granite Construction **21a**
Great A&P **10c**
Great Lakes Chemical **4**
Great Western **17c**
Greif Bros. **7b**
Greyhound Dial **5**
Grossman's **8**
GTE **22b**
Guilford Mills **15d**
Gulf States Utilities **24a**

H

Halliburton **11c**
Handleman **21e**
Hanna (M. A.) **4**
Hannaford Brothers **10c**
Harley-Davidson **14d**
Harman International **14d**
Harnischfeger **15c**
Harris **9b**
Harsco **15a**
Hartford Steam **17b**
Hartmarx **6a**
Hasbro **14d**
Hawaiian Electric **24a**
Hechinger **8**
Heinz (H. J.) **10b**
Helene Curtis Industries **6d**
Hercules **4**
Hershey Foods **10b**
Hewlett-Packard **18b**
Highland Superstores **6b**
Hillenbrand **15a**
Hillhaven **12c**
Hills Department Stores **8**
Hilton Hotels **14c**
Holly **11b**
Home Depot **8**
Home Shopping **8**
HomeFed **17c**
Homestake Mining **16c**
HON Industries **18a**
Honeywell **9c**
Hormel (Geo. A.) **10b**
Houghton Mifflin **20b**
Houston Industries **24a**
Howell **21b**
Hubbell **9a**
Hudson Foods **10b**
Huffy **14d**
Hughes Supply **13a**
Humana **12c**
Hunt (J. B.) **23d**
Huntington Bancshares **3b**

I

IBC Holdings **10b**
IBM **18b**
IBP **10b**
Illinois Power **24a**
Illinois Tool Works **15a**
IMC Fertilizer **4**
Imecera Group **4**
Imo Industries **9c**
Imperial Holly **10b**
Inacomp Computer **18a**
Ingersoll Rand **15c**
Inland Steel **16b**
Inspiration Resources **16c**
Intel **9d**
Intelligent Electronics **18a**
Interco **6b**
Interface **15d**
Intergraph **18b**
Interlake **15c**
International Flavors **6d**
Intl. Multifoods **10b**
International Paper **19b**
Interpublic Group **21d**
Ipalco Enterprises **24a**
Itel **5**
ITT **5**

J

James River **19b**
Jamesway **8**
Johnson & Johnson **12d**
Johnson Controls **9c**
Jostens **15a**
Joy Technologies **15c**
JWP **21e**

K

K mart **8**
Kaman **1**
Kansas City Southern **23b**
Kansas G&E **24a**
Karcher (Carl) **14a**
Kaufman & Broad **13b**
Kellogg **10b**
Kellwood **6a**
Kelly Services **21e**
Kemper **17b**
Kennametal **15b**
Kentucky Utilities **24a**
Kerr-McGee **11b**
KeyCorp **3a**
Keystone Intl. **15a**
Kimball International **6b**
Kimberly-Clark **19b**
Knight-Ridder **20b**
Kroger **10c**

L

L. A. Gear **6a**
La-Z-Boy Chair **6b**
Ladd Furniture **6b**
Lafarge **13a**
Lands' End **8**
Leggett & Platt **6b**
Leslie Fay **6a**
LG&E Energy **24a**
Lifetime **12c**
Lilly (Eli) **12b**
Limited **8**
Litton Industries **9b**
Liz Claiborne **6a**
Lockheed **1**
Loews **17a**
Lone Star Techs. **16b**
Longs Drug Stores **12a**
Longview Fibre **7b**
Loral **9b**
Lotus Development **18c**
Louisiana Land **11b**
Louisiana-Pacific **19a**
Lowe's **8**
LSI Logic **9d**
LTV **5**
Lubrizol **4**
Lukens **16b**
Lyondell **4**

M

Magma Copper **16c**
MagneTek **9a**
Manor Care **12c**
Manufacturers Hanover **3a**
Manufacturers Natl **3b**
Manville **13a**
Mapco **11b**
Marion Merrell Dow **12b**
Mark IV Industries **15a**
Marriott **14c**
Marsh & McLennan **17a**
Marshall Industries **21b**
Martin Marietta **1**
Mary Kay **6d**
Mattel **14d**
Maxtor **18b**
Maxus Energy **11b**
Maxxam **16a**
May Department Stores **8**
Maytag **6b**
MCA **14b**
McCaw Cellular **22a**
McCormick **10b**
McDonald's **14a**
McDonnell Douglas **1**
McGraw-Hill **20b**
MCI Communications **22a**
McKesson **12a**
Mead **19b**
Medco Containment **12a**
Media General **20b**
Medtronic **12d**
Mellon Bank **3a**
Melville **8**
Mercantile Stores **8**
Merck **12b**
Meredith **20b**
Meridian Bancorp **3a**
Merrill Lynch **17a**
Merry-Go Round **8**
Meyer (Fred) **8**
Michael Foods **10b**
Michigan National **3b**
Microsoft **18c**
Midlantic **3a**
Midway Airlines **23a**
Miller (Herman) **18a**
Millipore **9c**
Mine Safety **12d**
Minnesota Mining **15a**
Mitchell Energy **11b**
MNC Financial **3a**
Mobil **11b**
Modine Mfg. **2b**
Molex **9d**
Monsanto **4**
Montana Power **24a**
Morgan (J. P.) **3a**
Morgan Products **21b**
Morgan Stanley **17a**
Morrison **14a**
Morrison Knudsen **21a**
Morton International **4**
Motorola **9b**
Multimedia **20a**
Murphy Oil **11b**

N

Nacco Industries **11a**
Nalco Chemical **4**
Nashua **7b**
National City **3b**
Natl. Convenience **10c**
National Gypsum **13a**
National Health **12c**
National Intergroup **5**
National Medical **12c**
National Semicond **9d**
National Service **9a**
Navistar International **2a**
NBD Bancorp **3b**
NCH **6d**
NCNB **3c**
NCR **18b**
Neiman-Marcus Group **8**
Nerco **11a**
New England Electric **24a**
New York State E&G **24a**
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Newell **15a**
Newmont Gold **16c**
Newmont Mining **16c**
Niagara Mohawk **24a**
Nicor **24b**
Nike **6a**
Nipsco Industries **24a**
NL Industries **4**
Noland **13a**
Nordstrom **8**
Norfolk Southern **23b**
Northeast Federal **17c**
Northeast Utilities **24a**
Northern States **24a**
Northern Trust **3b**
Northrop **1**
Norwest **3b**
Novell **18c**
Nucor **16b**
Nynex **22b**

O

Occidental Pet. **11b**
Office Depot **21b**
Ogden **5**
Ohio Edison **24a**
Oklahoma G&E **24a**
Olin **4**
Olsten **21e**
Omnicom Group **21d**
Oracle Systems **18c**
Orion Pictures **14b**
Oryx Energy **11b**
Owens & Minor **12d**
Owens-Corning **13a**
Oxford Industries **6a**

P

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Pacific Enterprises **24b**
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Pacific Telecom **22a**
Pacific Telesis Group **22b**
PacifiCorp **24a**
PaineWebber Group **17a**
Pall **5**
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Paramount Comms. **14b**
Parker Hannifin **15a**
Penn Central **5**
Penn Traffic **10c**
Penney (J. C.) **8**
Pennsylvania Power **24a**
Pennzoil **11b**
Pentair **15c**
Pep Boys **8**
PepsiCo **6c**
Perkin-Elmer **9c**
Perry Drug Stores **12a**
Petrie Stores **8**
Pfizer **12b**
Phelps Dodge **16c**
PHH **23c**
Philadelphia Electric **24a**
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Phillips Petroleum **11b**
Phillips-Van Heusen **6a**
PHM **13b**
Pier 1 Imports **6b**
Pinnacle West **24a**
Pioneer Hi-Bred **10b**
Pitney Bowes **18a**
Pittston **11a**
Ply-Gem Industries **13a**
PNC Financial **3a**
Polaroid **14d**
Pope & Talbot **19a**
Portland General **24a**
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Potomac Electric **24a**
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PS Co. of Colorado **24a**
Public Service Ent **24a**
Puget Sound Power **24a**

Q

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Quaker State **11b**
Quanex **16b**
Quantum **18b**
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R

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Raychem **9a**
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Reynolds Metals **16a**
Richfood Holdings **10a**
Rite Aid **12a**
RJR Nabisco **6e**
Roadway Services **23d**
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Rochester G&E **24a**
Rochester Telephone **22b**
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Rohr Industries **1**
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Ruddick **10c**
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Ryland Group **13b**

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Sara Lee **10b**
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SCEcorp **24a**
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Schulman (A.) **4**
Schwab (Charles) **17a**
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Seaboard **10b**
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Shawmut National **3a**
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Smith Corona **18a**
Smith's Food & Drug **10c**
Smithfield Foods **10b**
Smucker (J. M.) **10b**
Snap-on Tools **15b**
Society **3b**
Sonat **24b**
Sonoco Products **7b**
Southdown **13a**
Southeast Banking **3c**
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So. New Eng. Tel. **22b**
Southwest Airlines **23a**
Southwestern Bell **22b**
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Spiegel **8**
Springs Industries **15d**
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Square D **9a**
St. Paul **17b**
Standard Federal **17c**
Standard Products **2b**
Standard Register **18a**
Standex Intl. **13a**
Stanhome **6d**
Stanley Works **15b**
State Street Boston **3a**
Sterling Chemicals **4**
Stewart & Stevenson **15c**
Stone Container **7b**
Storage Technology **18b**
Strawbridge & Clothier **8**
Stride Rite **6a**
Student Loan Mktg. **17a**
Sun **11b**
Sun Microsystems **18b**
Sundstrand **1**
SunTrust Banks **3c**
Super Food Services **10a**
Super Valu Stores **10a**
Supermarkets Gen. **10c**
Syntex **12b**
Sysco **10a**

T

Tambrands **6d**
Tandem Computers **18b**
Tandy **18b**
TBC **21b**
TCF Financial **17c**
Teco Energy **24a**
Tecumseh Products **13a**
Tektronix **9c**
Teledyne **5**
Temple-Inland **7b**
Tenneco **5**
Teradyne **9c**
Terex **15c**
Texaco **11b**
Texas Industries **13a**
Texas Instruments **9d**
Texas Utilities **24a**
Textron **5**
Thiokol **1**
Thomas & Betts **9a**
Thomas Industries **9a**
Thorn Apple Valley **10b**
3M **15a**
Time Warner **20b**
Times Mirror **20b**
Timken **15c**
TJX **8**
Tonka **14d**
Torchmark **17b**
Toro **6b**
Tosco **11b**
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Transamerica **17a**
Travelers **17b**
Tredegar Industries **15a**
Tribune **20b**
Trinity Industries **23c**
Trinova **15a**
TRW **5**
20th Century Inds. **17b**
Tyco Toys **14d**

U

U. S. Bancorp **3d**
U. S. Healthcare **12c**
U. S. Home **13b**
U. S. Shoe **8**
U. S. Surgical **12d**
UAL **23a**
UJB Financial **3a**
Union Camp **19b**
Union Carbide **4**
Union Electric **24a**
Union Pacific **23b**
Union Texas **11b**
Unisys **18b**
United Illuminating
United Stationers
United Technologies
United Telecomms
Univar **21b**
Universal **6e**
Universal Health
Unocal **11b**
UNUM **17b**
Upjohn **12b**
US West **22b**
USAir Group **23c**
USG **13a**
USLico **17b**
USLife **17b**
UST **6e**
USX **5**

V

Valero Energy **11**
Valhi **5**
Valley National
Valmont Industries
Valspar **13a**
Varian Associates
VF **6a**
Viacom **20a**
Vista Chemical **4**
Volt Inf. Sciences
Vulcan Materials
VWR **21b**

W

Waban **8**
Wackenhut **21e**
Wal-Mart Stores
Walgreen **12a**
Wallace Comput
Wang Laborator
Warner-Lambert
Washington Post
Waste Managem
Weirton Steel **1**
Weis Markets **1**
Wellman **4**
Wells Fargo **3d**
Wendy's Intl. **1**
Western Digital
Westinghouse El
Westmark Intl **1**
Westmoreland C
Westvaco **19b**
Wetterau **10a**
Weyerhaeuser **1**
Wheelabrator Te
Wheeling-Pittsbu
Whirlpool **6b**
Whitman **5**
Wholesale Club
Wickes **15d**
Willamette Indu
Willcox & Gibbs
Williams **24b**
Winn-Dixie Stor
Wisconsin Energ
Witco **4**
WLR Foods **10b**
Woolworth **8**
Worthington Inc
Wrigley (Wm.) J
Wyle Laborator

XYZ

Xerox **18b**
Yellow Freight **2**
Zenith Electroni
Zenith National
Zurn Industries

Footnotes on page 143

TEAM WORK

TING THE RIGHT PEOPLE TO THE
T PLACE – RIGHT AWAY. CREWS THAT FLY
HE U.S. COAST GUARD SEARCH AND RESCUE TEAMS.
RS AND NURSES WORKING WITH RESCUE GROUPS: ALL
ON THE RELIABILITY OF AEROSPATIALE HELICOPTERS.
HE COOPERATION OF INDUSTRY EXPERTS AND AERO-
SUBCONTRACTORS, AEROSPATIALE DESIGNS AND MANU-
RES THE WORLD'S MOST ADVANCED HELICOPTERS.
PTERS WHICH ARE ASSEMBLED FOR NORTH AMERICA BY A
EMBER WORK FORCE IN TEXAS FULLFILL THE DEMANDS
FICIENCY AND CONFIDENCE OF THE TEAMS FROM HOS-
POLICE OR CORPORATE MANAGEMENT. CREATING AND
G TOGETHER KEEPS US UP THERE. MEET THE TEAM.

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EDITED BY TROY SEGAL

Pets

IT TAKES A SPECIAL BREED TO PLAY THE DOG GAME

GIANT SCHNAUZER BREEDER MENAKER: "YOU CAN'T JUST THROW TWO DOGS TOGETHER AND PRODUCE A QUALITY LITTER"

For some people, the sweetest sound in the world is the pitter-patter of little paws. We're not talking puppy love here. We're talking the dog game—an obsession with canine perfection that leads an otherwise rational person to devote thousands of hours and considerable capital to maintaining the integrity of a beloved breed.

The basics are as simple as the facts of life. But "you can't just throw two dogs together and produce a quality litter," says Ronald Menaker, a J.P. Morgan senior vice-president who raises giant schnauzers. Much of the dog game is a genetic gamble. "You're dealing with nature, which will sometimes let you get ahead and sometimes take you back," says Lilian Ostermiller, a professional breeder of Bernese mountain dogs in Flemington, N. J.

If you want to join the company of such dog people as Bill Cosby (terriers), Sylvester Stallone (boxers), or Mattel CEO John Amerman (German shepherds), your initial investment is time. Specialty magazines, national breed associations, and the American Kennel Club are fine sources of information (box). But it's only by watching animals in action that you learn to spot quality. A "typey" dog, one that exemplifies the best traits of its breed, will stand out at a show. A great dog gets the audience to slobber like excited spaniels.

PUPPY-TRAINED. There are hundreds of dog shows, obedience trials, and field events year round all over the country. These not only let you study your breed's "conformation"—the physiological characteristics that meet standards—but are also best way to meet repu breeders. If you take the to do research, says Men "you are more likely to up with a superior first

That first dog is the investment. Quality pu sell for $500 to $1,500, de ing on their breed and b lines, while champion adults, starting at $1,000 cost as much as $10,000. advantage of buyi puppy is that y learn a lot by raisi "I don't think you g know any breed til live with it a w says Judson Stre senior general pa of Wall Street br age J. Streicher, w has shown boxers years and breeds a casional litter. Bu fects such as hip dy sia—traits you

GETTING HELP BEFORE YOU GO TO THE DOGS

▶ **AMERICAN KENNEL CLUB** New York, N.Y. (212 696-8200). The largest registry of purebreds in the U.S., the AKC maintains a library of 17,000 volumes and a Breeder Information & Reference Service, plus free pamphlets for novices.

▶ ***ATLAS OF DOG BREEDS OF THE WORLD*** (TFH Publications, $100; 201 988-8400). This well-illustrated book describes hundred of breeds not recognized by the AKC.

▶ ***DOG WORLD*** (monthly, $28 a year; 312 726-2802). This magazine is a good source of information on breeders, shows, and veterinary care.

▶ **THE DOG MUSEUM** St. Louis, Mo. (314 821-3647). Founded in 1987 by a group of art and dog lovers, the museum houses a collection of fine paintings and bronzes, plus a video library with more than 80 educational tapes.

DATA: BW

to perpetuate—aren't
nt until the dog is ma-
The Orthopedic Founda-
for Animals, which rates
oundness, won't certify a
until it's two years old,
onscientious owners will
reed before then.

RTSHIP THING.' The costs
e hobby are modest, but
can add up. Serious
ers build a dog run and
l at least $350 on obedi-
training. Even healthy
es need checkups at the
everal times a year. A
haircut for a standard
e can run $150. Finally,
ng a mate that will en-
e your animal's best
and compensate for its
; may take a lot of trav-
s not unusual for breed-
nd their dogs to cross
ountry or even an ocean
d the perfect partner.

In canine sexual encounters, as in human ones, timing is everything. A bitch comes into heat only twice a year, with each season lasting about 21 days. But ovulation can occur anytime from day 2 to day 20. Veterinarians can sometimes help pinpoint prime time. Most often, though, "you basically get the dogs together in a cleared room and let them do their little courtship thing," says John Boelte of Boelte's Bronze Vizslas in Valhalla, N. Y. He retired early from corporate finance to raise, train, and show the sleek hunting dogs.

How do you tell good breeding stock, in either a puppy or a mature mate? Aside from the absence of obvious physical flaws, the dog should be sociable, responsive, and simply happy. Some people have an instinct for star quality. "It's amazing how much an experienced breeder can tell by holding up a new puppy," says Robert Lindsay, former president of Morgan Guaranty Trust, who

A fancy haircut for a standard poodle can cost as much as $150

has raised bassets, bloodhounds, and Norfolk terriers.

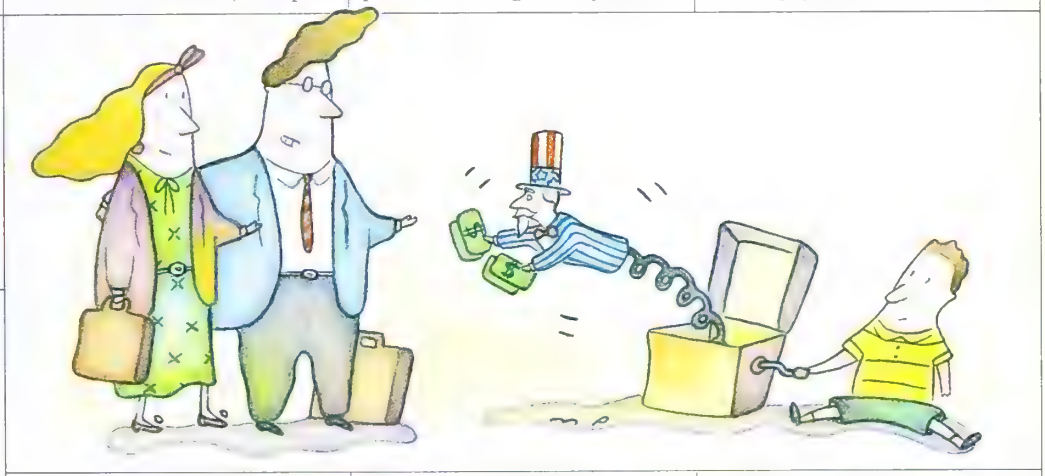
If you breed a male, you collect a stud fee, usually equal to the price of one puppy, or you may opt for the pick of the litter. A good stud dog can produce quality puppies for as long as 11 years. If your first dog is a bitch, the revenues from her litter can seem like found money.

But raising and selling puppies is a time-consuming business. A litter needs constant care, and a breeder is expected to assist a buyer long after the puppies have gone to their new homes. Even if you don't do it for a living, breeding is a long-term commitment. "You have to really learn the conformation, recognize the faults in your dog, and try to offset those weaknesses," says Menaker. "And it isn't going to happen in one litter."

Breeding is also a responsibility. Unwanted puppies often end up in shelters or experimental labs. So if you don't want to breed or show your dog, get it neutered. Animal cruelty has no place in the dog game. *Joan Warner*

Tax Tips

BETTER K PLAY ON ILD CARE



a two-career family in-
ades children under 13, a
nevolent Uncle Sam al-
a tax credit on the 1040
elp defray child care
But there's a better
available—if an employer
ou set aside pretax dol-
o pay the bills.
survey found that about
of companies have such
ident-care plans, says
its consultancy A. Fos-
Higgins. Don't delay
cing whether you can
ipate, since most em-
rs need to know before
nd how much to set
(maximum: $5,000) from
1991 salary.

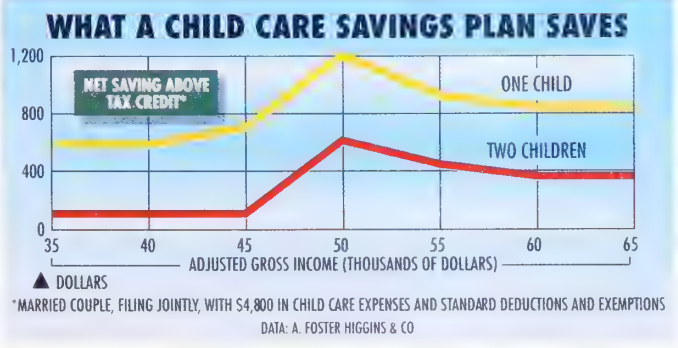
AINS. To figure how a
gs plan can beat the tax
, the consultant looked
uples filing jointly who
l at least $4,800 a year
ay care, preschools, and
ke. For a couple with ad-
l gross income (AGI) of
0 or more, the most the
saves is $480 for one
$960 for two or more.

But with $5,000 set aside in a dependent-care account, a couple with an AGI of anywhere up to $50,000 immediately saves $367 that would otherwise go for Social Security tax. Then, the salary reduction results in a lower income tax. The combined savings is invariably larger than the tax credit (chart). The greatest savings—$1,231—go to one-child couples with a salary that at least equals the Social Security wage base (now $51,300).

Single parents with head-of-household status who spend at least $4,800 for one child also benefit. Those at the $50,000-to-$60,000 level come out ahead by $1,231; at $80,000 to $90,000, by more than $1,000.

In addition, money set aside means a smaller state and local tax tab. Foster Higgins based its calculations on taxpayers in the 28% bracket, but analyst George Faulkner notes that savings usually mean more at higher rates.

Dependent-care dollars must go toward expenses that enable a parent to work. A day care center would count, for example, but an overnight camp would not. Also, each dollar from the account offsets any costs used to figure the tax credit. So parents are effectively limited from trying to trim taxes with both methods. *Don Dunn*



Recordings

CD REISSUES THAT BRING 'EM BACK ALIVE

On Jan. 19, 1912, the 33-year-old Enrico Caruso strode up to the microphone of the Victor Record Co. and performed *Tarantella Sincera* by de Crescenzo. Those not fortunate enough to own a well-preserved 78-rpm record of this rousing performance have had to be content with transfers onto LP, most of which are tepid or uninspiring—very un-Caruso-like.

But not anymore. Nimbus Records, a small label based in Britain, did Caruso right. They played the 78s on an acoustic "Ginn" gramophone in mint condition and used microphones to capture the performance. Despite some low-level scratches, the resulting compact disk shimmers with immediacy and passion.

Nimbus' efforts typify one of the happiest offshoots of the CD revolution: Energized by a whole new audience attuned to CD revivals, record companies large and small are scouring their vaults for old gems.

CLINKERS. But being remastered on a CD doesn't necessarily mean music sounds good. Deutsche Grammophon recently discovered recordings of Wilhelm Furtwängler conducting the Berlin Philharmonic from 1942 to 1944. Unfortunately, some works, such as Beethoven's Symphony No. 5 in C Minor, squeal more than soar. So unless your interest is more historical than musical, peruse reviews in such magazines as *The Absolute Sound* or *Stereo Review* before buying.

Among the most awe-inspiring reissues on CD is Mercury's Living Presence series. The original LPs, issued in the 1950s and early '60s, are sonic treasures, highly valued by audiophiles. The CDs do justice to the tradition. They brilliantly capture the atmosphere of the recital hall and the delicate balance of all the instruments. Some of the highlights of the first 10 Living Presence reissues include Byron Janis' 1964 piano recordings in Moscow with Antal Doráti conducting Ottorino Respighi with the London Symphony Orchestra.

Jazz also benefits from the reissue boom. One of the more notable enders is by Mosaic Records, a small mail-order outfit (203 327-7111). Mosaic produces loving restorations of material from Blue Note and other specialty labels. Its CDs typically combine outtakes with released numbers to capture a slice of a performer's history—say, all of Thelonious Monk's recordings on Black Lion and Vogue labels. As the reissue craze spreads, look for a lot more gold and silver disks. *David Z*

Smart Money

WITH THESE OPTIONS, TIME IS ON YOUR SIDE

For many investors, playing the options market is about as attractive as juggling a time bomb. Because options can become worthless after only a short time, they can blow up in the faces of those who guess wrong. But now, there's a way to defuse the bomb while keeping intact some of the options' lure: the chance to make money with limited downside risk.

They're called Long-term Equity AnticiPation Securities (LEAPS). The Chicago Board Options Exchange introduced them last September on 14 blue-chip stocks; the American Stock Exchange has a similar product on 10 stocks. Unlike standard equity options, which have a three-month life span, LEAPS trade for nearly two years before they expire. That gives investors more time to be right about their bet on the direction of a stock's price. But it comes at a cost: about $350 to $700, compared with $100 to $200 for many standard options.

Aside from the time frame, LEAPS work like any other option. A single LEAPS contract gives the holder the right—but not the obligation—to buy or sell 100 shares of stock at a predetermined price on or before a specific expiration date. For example, buying an IBM 135 "call" option is a bet that IBM will rise above $135 a share before July, 1992. Buying an IBM 85 "put" option is a bet that IBM will fall below $85 a share during the same period.

SOME POPULAR LEAPS

Company Share price	100-share options Call	 Put
DOW CHEMICAL		
$42.65	$375	$362.50
GENERAL ELECTRIC		
$53	$475	$437.50
MERCK $78	$625	$387.50

DATA: BW

NOT CHEAP. To take either risk, investors would have to pay about $700 to lock up the right to buy or sell 100 shares of IBM. That's not cheap, compared with conventional IBM options due to expire in November: A call option with a 115 strike price costs as little as $25, for example. But given the fact that IBM is now trading at 108, the short-term option is so likely to expire worthless that it's no bargain, even at that price.

For owners of stock, selling LEAPS may be a particularly attractive strategy. An owner of 100 shares of IBM who doesn't see much upside over the next two years could make money by selling an IBM call LEAPS. If IBM were to rise above 135, the option would be exercised and the seller would surrender those shares at 135. But if IBM did not climb to 135 before expiration, the seller would get to keep his stock but still pocket the $700 he got for selling the option.

An investor who thinks IBM shares will top 135 in two years but doesn't want to pay for them today can use LEAPS, too. Buying an IBM 135 call would lock in that price on 100 shares while saving the investor a $10,800 investment in IBM at $108 a share.

In short, LEAPS allow investors with long-term views to take an options position. Individuals often avoid options because their prices move so quickly as expiration nears. With LEAPS, even though the options time bomb is ticking, investors can relax for some time before worrying about the explosion. *David Greising*

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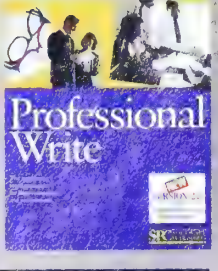

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Last April, violent demonstrations forced Nepal's King Birendra to give up absolute rule and scared away travelers. But the country has quieted again as the Nepalese await a new constitution—due to be proclaimed this month—and elections that will pave the way for a multiparty democracy in 1991. The U.S. State Dept., which had warned Americans to avoid Nepal, recently eased its advisory to a simple caution.

Now is a good time to start planning a visit for one of the prime tourist seasons: February through April, when the weather is dry and warm. To do Nepal right, allow a minimum of nine days; two weeks for a full-course trip.

Though it has gotten somewhat commercialized, trekking is still a must in Nepal, home to 8 of the world's 10 highest mountains. A trek is a hike along the trails that crisscross the country. But trekking is not backpacking. You don't have to lug your own gear, pitch a tent, or even cook. Sherpas serve as guides and chefs, while porters carry the food and camping equipment. All you have to handle is a small pack for a water bottle and sunblock.

HIMALAYAN TREKKING IN NEPAL—WITH NO HEAVY BACKPACK TO LUG

BENGAL TIGERS. Nepalese tour groups offer dozens of organized treks, from an easy three-day hike in the terraced foothills of the Annapurna range to a rigorous 25-day climb to a Mt. Everest base camp. One of the most popular is the Royal Trek, offered by Mountain Travel Nepal. This three- or four-day ramble starts outside Pokhara in central Nepal. The route, a series of moderate ascents and descents, is through remote hillside farms and villages of thatched, terracotta-colored houses. At the first campsite, there are stunning sunrise views of snow-capped peaks turning to pastel hues.

After a trek, you'll be ready for the bucolic luxury of a jungle camp. One of the best-known, Tiger Tops, is nestled in the Royal Chitwan National Park, 80 miles southwest of Kathmandu. Staff naturalists will guide you on walks through the forest, pointing out termite castles that reach five feet in height. But elephant-back safaris offer the biggest thrills. Dawn or dusk is the best time to see the unicorn rhinoceros, spotted deer, wild cattle, and 450 species of birds. About 40 Royal Bengal tigers lurk there too, although sightings are rare.

Plan to spend a nigh both the lodge and the c The lodge has simply nished rooms with pr bath. Dinners by candle (the complex has no ele ity) are served in a r thatched-roofed, stone The smaller tented camp more of a communing- nature feel. Its dining te and 12 twin-bedded tents the grassland. The $42 person charge for two n covers everything, inch as many elephant rides a care to take.

CREMATION SITE. Even hard adventurists shou miss the treasures of mandu, a living museu Hindu and Buddhist cu The capital itself is bes plored on foot. But to tou surrounding valley, hire and driver and spend at half a day exploring. town of Bhaktapur, a miles east of the capital repository of art and arc ture from the 17th centu

The nearby Hindu te of Pashupatinath is N most famous and is a fa cremation site for rich, and royalty alike. Bodie burned on platforms tha out into a narrow river.

Bodhnath, the center betan culture in Nepal, boasts its largest stup holy place. Buddhist wo ers spin prayer whee they walk clockwise a the circular, white m topped by a spire, built fifth century. Not as ex as a mountain trek, but your adventures on the a little spiritual contemp is just the way to concl visit to Nepal. *Amy B*

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DATA: BW

Worth Noting

■ **INSURANCE ALERT.** Once popular among workers who paid 5¢ weekly premiums, "industrial" policies may still be lying around some houses and have appreciated since they were written. Metropolitan Life, which sold them from 1879 to 1964, just paid more than $3 million to surprised beneficiaries. To find out if you're one, call 800 638-5433.

■ **GOOD OFFICES.** Environ tally concerned manage now order recycled products from Quill (70 6650). Its new catalo cludes a 12-page "green tion with everything envelopes to hanging fil

■ **CRUISE CONTROL.** Re Cruises (212 972-4499) is ing a deal on four Cari trips in December. The passenger pays $1,400-$ the second, third, and f sail half-price.

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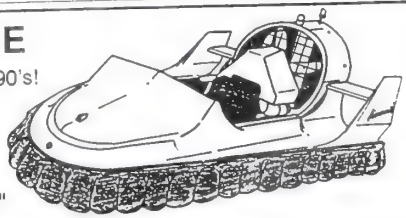

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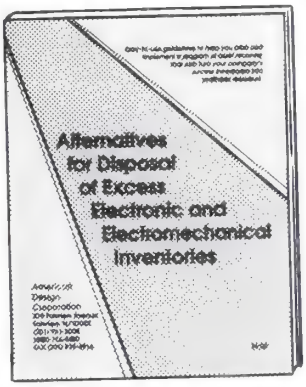

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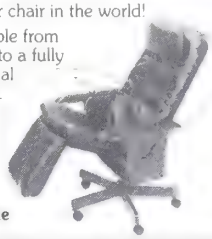

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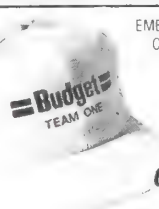

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BEST

Number of Periodical Selections:
Best Stories and Columns of 1989

Insight	4
Business Week	3
Fortune	2
National Journal	2
Time	1
Forbes	1
New York Times Magazine	1
New York	1
The National Interest	1
Foreign Affairs	1
New York Review of Books	1
Financial World	1

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of the "Best"

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Insight
on the news

ex to Companies

x gives the starting page for a story or fea- a significant reference to a company. Most ies are indexed under their own names. es listed only in tables are not included.

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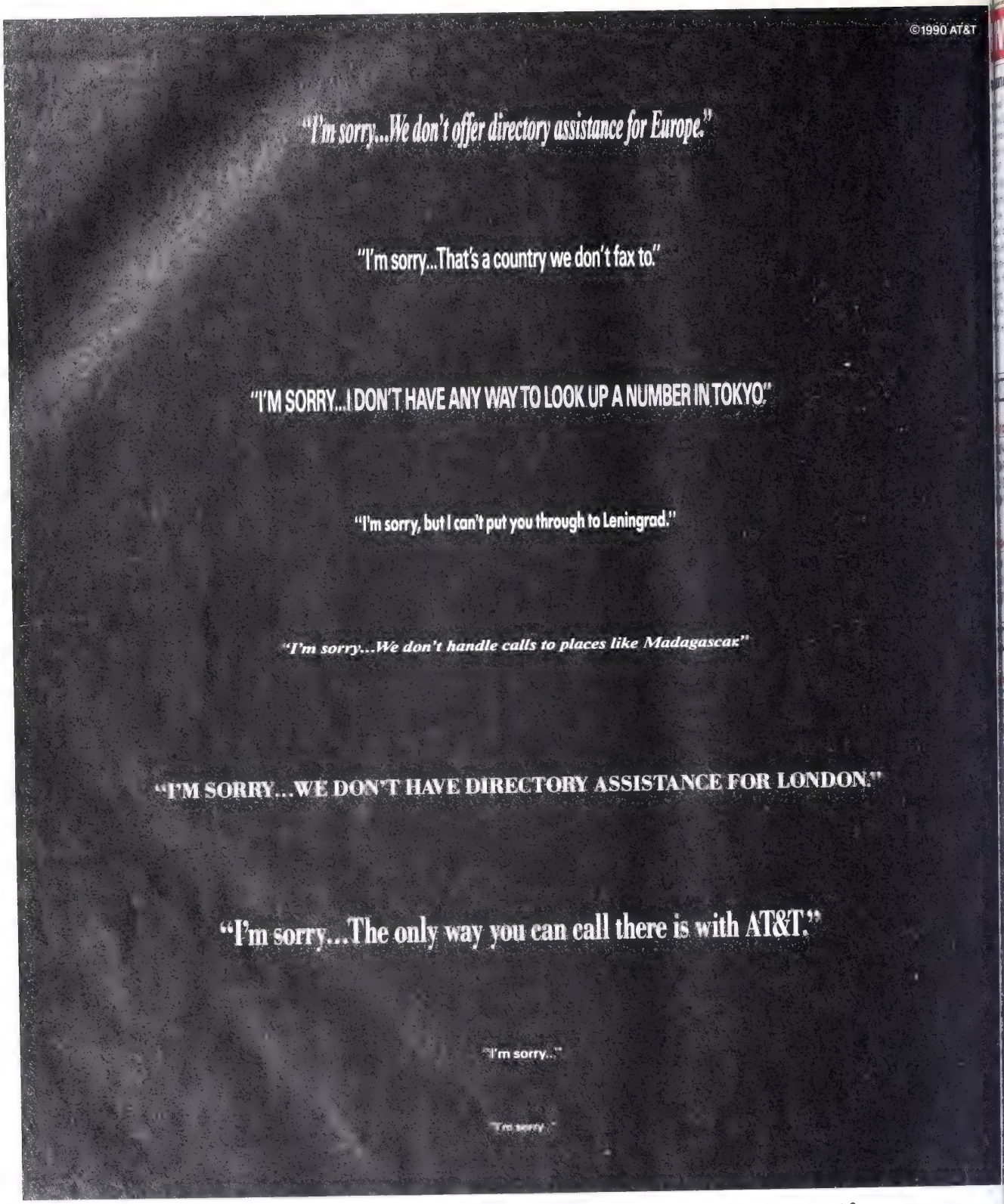

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vestment Figures of the Week

ITARY

an Gulf crisis continued
pall over the world fi-
narkets. The Dow Jones
average slid 44 points
7, after British Prime
Margaret Thatcher said
Hussein must leave Ku-
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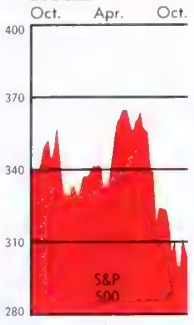
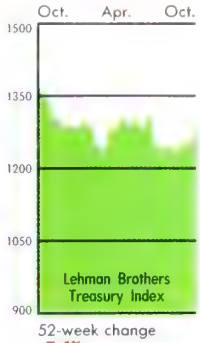
STOCKS



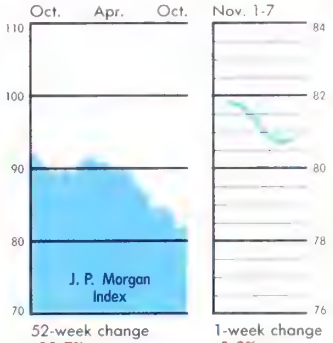
52-week change **–9.5%**
1-week change **+0.7%**

BONDS



52-week change **–7.4%**
1-week change **+0.7%**

THE DOLLAR



52-week change **–11.7%**
1-week change **–1.3%**

KET ANALYSIS

OCKS	Latest	% change Week	52-week
NES INDUSTRIALS	2440.8	–0.1	–7.0
IPANIES (Russell 1000)	158.0	0.9	–11.4
OMPANIES (Russell 2000)	120.4	1.3	–28.0
IPANIES (Russell 3000)	166.8	0.9	–12.4

N STOCKS	Latest	% change (local currency) Week	52-week
(FINANCIAL TIMES 100)	2059.2	0.4	–6.6
NIKKEI INDEX)	23,500.3	–6.7	–34.0
) (TSE COMPOSITE)	3071.1	–0.3	–21.8

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.3%	7.4%	7.9%
30-YEAR TREASURY BOND YIELD	8.7%	8.8%	7.9%
S&P 500 DIVIDEND YIELD	3.8%	4.0%	3.2%
S&P 500 PRICE/EARNINGS RATIO	14.1	13.6	13.9

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	336.3	337.5	Negative
Stocks above 26-week moving average	15.5%	12.2%	Positive
Speculative sentiment: Put/call ratio	0.55	0.64	Positive
Insider sentiment: Vickers sell/buy ratio	0.50	0.51	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

EEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
H CARE SERVICES	16.2	61.9	BEVERLY ENTERPRISES	19.6	41.9	7⅝
ANCE BROKERS	11.6	–22.2	ALEXANDER & ALEXANDER	14.8	–39.0	20⅜
RTY CASUALTY INSURERS	9.5	–17.6	CHUBB	24.3	4.2	46
LTY APPAREL RETAILERS	8.4	–20.6	GAP	18.1	–7.3	26⅞
JTER SOFTWARE AND SERVICES	8.1	–25.5	COMPUTER ASSOCIATES INTL.	21.7	–39.1	7

EEK LAGGARDS	% change 4-week	52-week	Weakest stock in group	% change 4-week	52-week	Price
INE TOOLS	–22.7	–44.0	CROSS & TRECKER	–50.0	–68.5	2⅛
NUM	–14.1	–16.8	REYNOLDS METALS	–14.6	1.2	51⅞
SHINGS AND APPLIANCES	–13.4	–42.5	MAYTAG	–24.8	–49.1	10¼
JMENTATION	–12.2	–37.7	HEWLETT-PACKARD	–14.1	–40.9	25⅞
S	–12.1	–22.5	CYPRUS MINERALS	–26.3	–45.0	14⅜

TUAL FUNDS

MORNINGSTAR INC

S

k total return	%
APANESE SMALL COMPANY	16.2
TY SELECT COMPUTERS	7.6
N	6.9

total return	%
Y STRATEGIES	40.7
TY SELECT ENERGY SERVICE	33.5
TY SELECT BIOTECHNOLOGY	29.8

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–22.0
UNITED SERVICES WORLD GOLD	–14.0
STRATEGIC GOLD/MINERALS	–13.9

52-week total return	%
PRUDENT SPECULATOR LEVERAGED	–47.4
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–44.3
WASHINGTON AREA GROWTH	–41.4

ATIVE PORTFOLIOS

DATA RESOURCES INC.

mounts
nt the present
f $10,000
d one year
each portfolio

ges indicate
total returns

Money market fund	Treasury bonds	Gold	U. S. stocks	Foreign stocks
$10,689	**$10,040**	**$9,967**	**$9,290**	**$8,937**
+0.14%	+2.10%	+1.47%	+2.49%	–0.79%

n this page are as of market close Wednesday, Nov. 7, 1990, unless otherwise indicated. roups include S&P 500 companies only; performance and share prices are as of market close Nov. 6. Mutual fund returns are as of Nov. 2. Relative portfolios are valued as of Nov. 6. A more detailed explanation of this page is available on request.

MAKE IT EASIER TO THROW THE BUMS OUT

It's a paradox. Voters went to the polls on Nov. 6 in a mood ranging from annoyance to flaming rage. Yet when the votes were counted in elections for the House and Senate, a mere handful of incumbents lost (page 42). What's going on?

The painful truth is that the U. S. political system offers the voter little real choice. Incumbents nearly always win—97% of them did this time around—because they have no effective opposition. In rare cases, a seemingly hopeless challenger can topple an incumbent, as Paul D. Wellstone did Senator Rudy Boschwitz (R-Minn.). But most of the time, the sheer power of incumbency is enough to scare the best-qualified challengers out of the race. An unhealthy result is the scandalously low voter turnout—about 36% this year.

If we are going to make sure there is an outlet for voter anger and discontent, the huge—often preemptive—fund-raising advantage that incumbents enjoy must be reined in. Knowing heads in Washington will nod and say that Congress will never pass reforms that jeopardize the advantages of incumbency. That's true, in the absence of an external threat. But the newfound popularity of term-limitation proposals such as those just passed in California and Colorado may spur lawmakers to action.

In itself, a term-limitation requirement is a terrible idea. Prohibiting voters from reelecting a respected incumbent is profoundly antidemocratic. That goes for the Presidency, too. And arbitrarily limiting the length of legislative service would deprive Congress of many of its wisest, most effective, and most thoughtful members.

But the threat of a term-limitation meat-ax could help persuade Congress to limit the amount of money candidates may spend in a campaign. Constitutional restrictions make this tricky, because the courts have ruled that campaign spending is a form of protected free speech. But there are ways around this restriction—for example, offering candidates free television time in exchange for agreeing to abide by spending limitations.

Nor should candidates be allowed to carry campaign funds forward to the next election. On Nov. 7, many House candidates had enough money left over from their races to scare away potential 1992 challengers. Outrageous!

AN SEC RULE THAT'S ALL PAIN, NO GAIN

The Securities & Exchange Commission is poised to slap Corporate America with an ill-advised new rule, limiting the amount of commercial paper held by money-market funds. Under the plan, which the commission will consider early next year, money funds could hold only 5% of their assets in medium-grade paper (page 120). That's paper rated A2 by Standard & Poor's Corp. (The top grade is A1; the SEC already bans the bottom grade, A3.) The seem laudable purpose of the rule is to safeguard money investors—whose holdings aren't protected by federal antees—from defaults.

Why fix something that isn't broken? The proposed would only worsen the longtime handicap that U. S. co nies have suffered against foreign competitors: a higher of capital. That's because they will be forced to bo short-term money from banks, which charge more.

Affected are a distinguished list of A2 corporations, ing from Philip Morris to Union Carbide. It's easy to s off concerns about competitiveness and say these comp are big enough to pay the extra millions of dollars in est. But what about the smaller borrowers that lac financial wherewithal to shoulder that burden?

A daunting example of well-meaning regulatory int Congress' savings-and-loan bailout bill, which req thrifts to divest themselves of junk bonds. In doing so, helped to sink the high-yield market—and closed off a able method of financing for fledgling companies.

Disclosure is a better approach. The government al ensures that money-market investors know what's i institutions' portfolios through semiannual reports, should be continued. Investors can judge for thems That's better than ham-handed regulation.

WHY THE U.S. IS SHIELDI A FEUDAL FAMILY

President Bush's planned journey to Saudi A points up just how much America's fortunes a tertwined with the House of Saud. The visit w the seal on a kind of bilateral compact. The U. S. has 200,000 troops to defend the kingdom. In return, the S have agreed to keep oil flowing freely and to contrib generous portion of their more than $150 million-a-day fall from higher oil prices to the military effort.

Neither side, however, should kid itself about the involved in this venture. By openly embracing the pre of U. S. troops and acknowledging that America coul day use Saudi territory as a launching pad for an atta Riyadh's Arab brothers in Iraq, the normally cautious royal family (page 66) runs the risk of alienating fund talists and other critics. The House of Saud will pro require U. S. support for a long time to come.

Saudi Arabia's remarkable economic development eventually lead to needed change in the conservative m chy—even some of the 4,000 Saudi princes now favor i trying to graft Western democratic institutions quickly what is still a tribal society could lead to disaster. It be naive to pretend that what is essentially a me oligarchy can be transformed into a Western-style den cy without great stress. The trick for the Saudis will liberalize in a way that is appropriate for their society a pace that does not jeopardize what the Saudis achieved since the kingdom's founding in 1926. In d with the Saudis, Washington needs to keep in mind w important to the U. S. in Arabia: stability and oil.

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BusinessWeek

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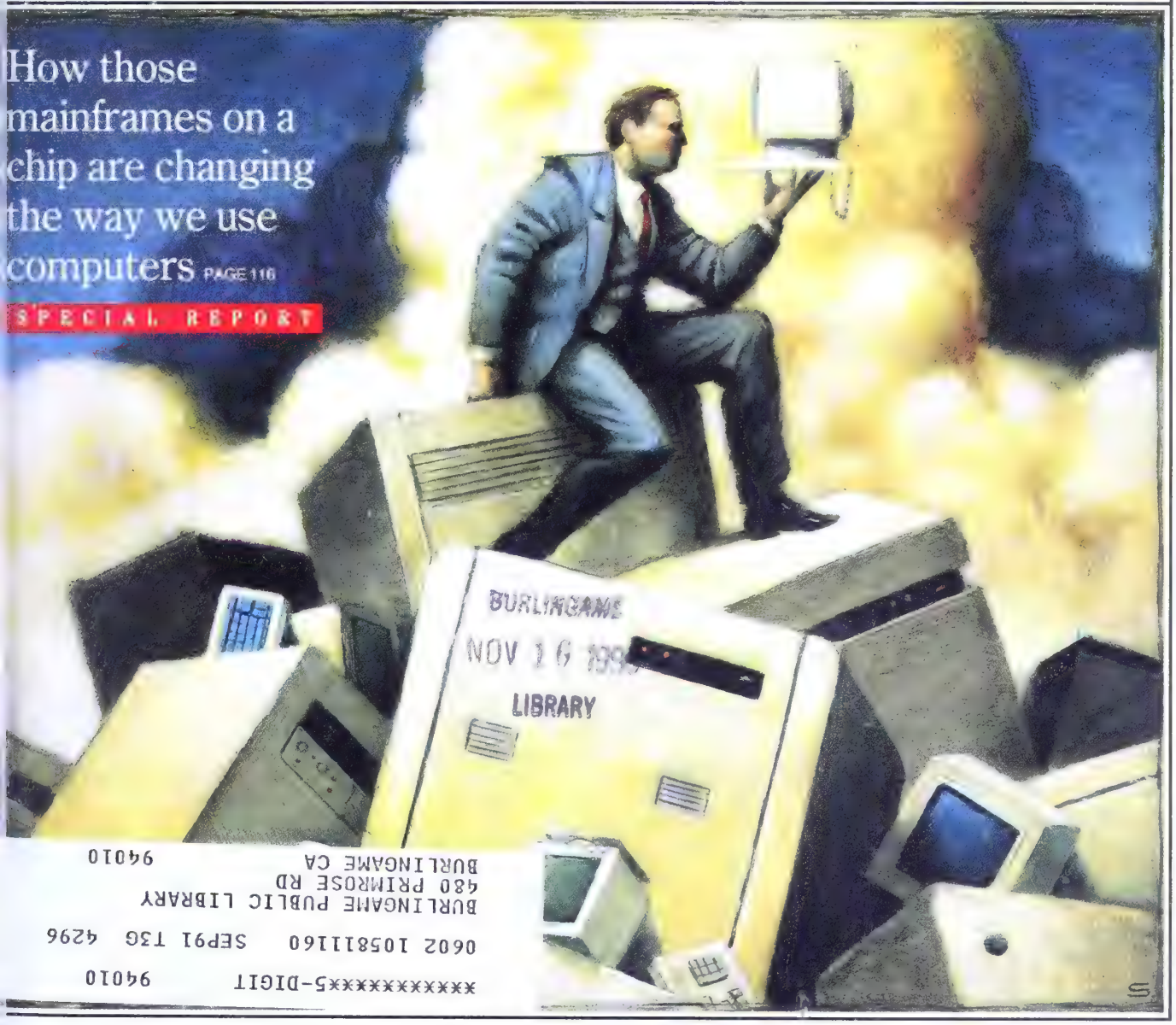
RETHINKING THE COMPUTER

How those mainframes on a chip are changing the way we use computers PAGE 116

SPECIAL REPORT



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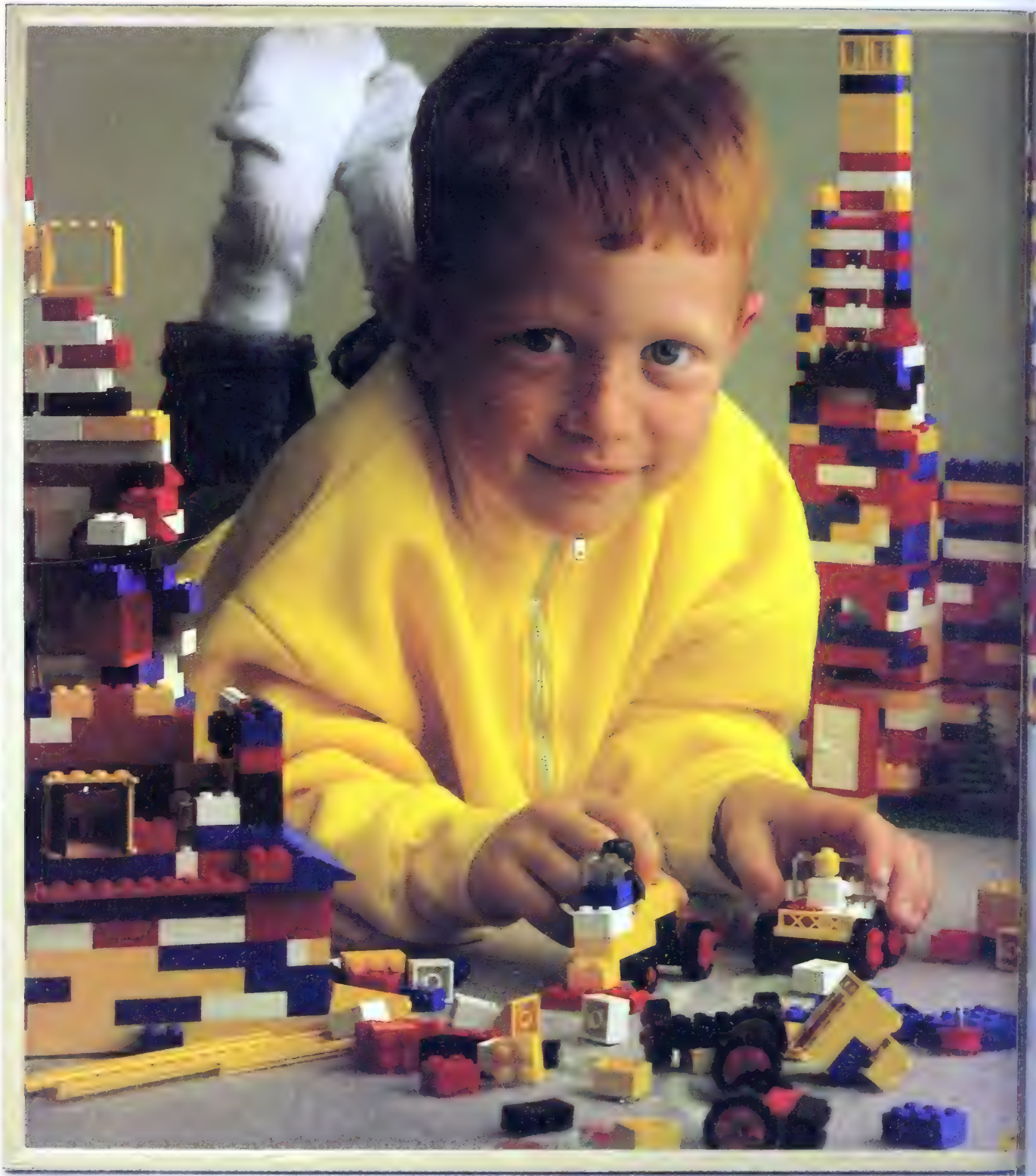

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And as the Hula-Hoo

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impending doom close

burst into the sma

large metal switchin

And I said in a voi

turn into a Nehr

then, above the hiss

"Relax. You bought

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Investment protection

be yours." And as I dro

I felt good because life, af

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ving good-bye.... I cleaned the garage
solescence. Go-go boots and lava lamps.
'led around my ankles, this feeling of
on me like night. So I rushed to work,
om most people avoid and stared at this
vice sitting there Buddha-like in the dark.
t as a prayer, "Don't get old on me. Don't
ket. Grow. Expand. 30,000 lines." And
air conditioner, I heard this voice say,
&T DEFINITY® System. I'm modular. As
my hardware can stay the same.
ON...virtually limitless growth. It can all
Rambler home, the 8-track boomed and
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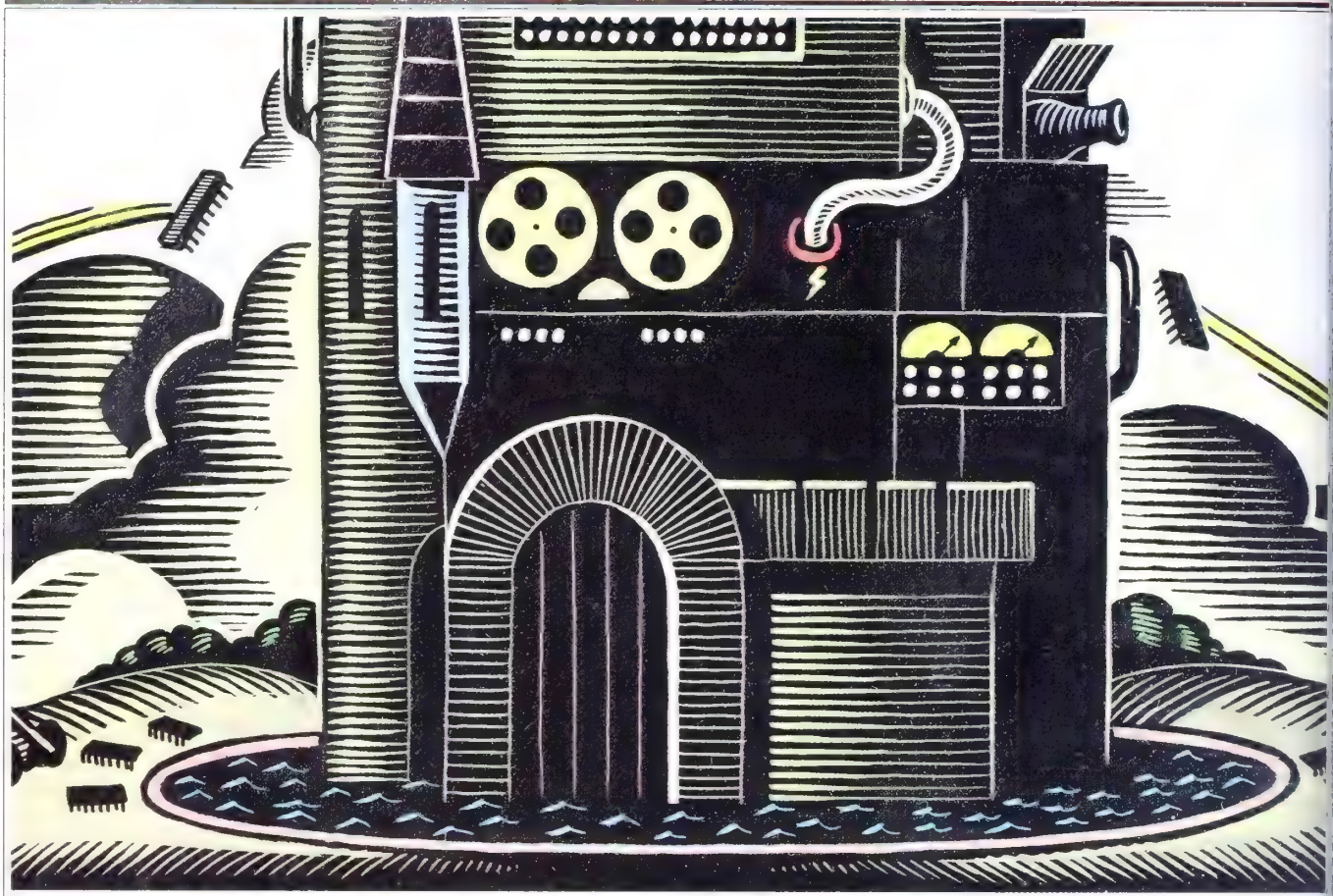

WHAT'S CHEAPER THAN A MAINFRAME AND PERFORMS THE SAME TASK? ANSWER: TODAY'S MICROPROCESSOR-BASED NETWORKS

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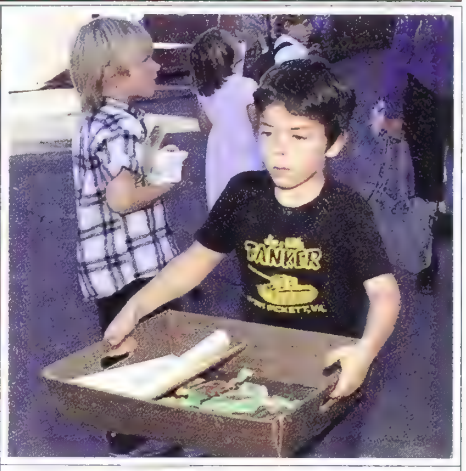

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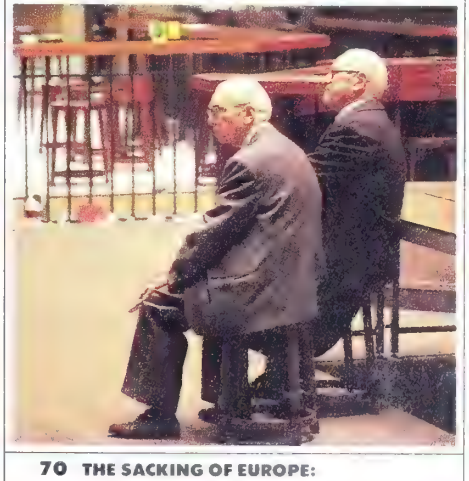

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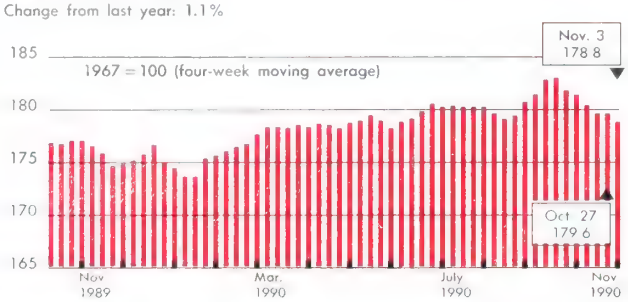
BusinessWeek Index

PRODUCTION

Change from last week: –0.4%
Change from last year: 1.1%

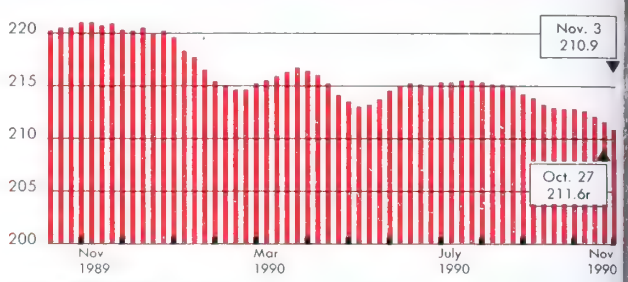


The production index dropped sharply for the week ended Nov. 3. On a seasonally adjusted basis, output of lumber, autos, coal, rail-freight traffic, and electric power all declined. Truck, crude-oil refining, steel, paper, and paperboard production increased. Before calculation of the four-week moving average, the index fell to 177.3, from 179.2 in the previous week. For the month of October, the index fell to 179.6, from 181.8 in September.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: –0.3%
Change from last year: –4.5%



The leading index decreased for the week ended Nov. 3. Lower stock prices and slower growth in real estate loans and M2 led the drop. The change in materials prices accelerated, and the number of business failures was down, while bond yields were little changed. Before calculation of the four-week moving average, the index dropped to 209.8, from 210.3. For the month of October, the index fell to 211.3, from 212.8 in September, the third consecutive monthly decline.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (11/10) thous. of net tons	1,887	1,880 #	8.9
AUTOS (11/10) units	109,006	140,649r #	–18.6
TRUCKS (11/10) units	61,702	89,454r #	–18.0
ELECTRIC POWER (11/10) millions of kilowatt-hours	52,102	50,897 #	3.1
CRUDE-OIL REFINING (11/10) thous. of bbl./day	12,667	12,948 #	–3.7
COAL (11/3) thous. of net tons	21,332 #	21,497	4.4
PAPERBOARD (11/3) thous. of tons	751.9 #	730.6r	1.7
PAPER (11/3) thous. of tons	783.0 #	771.0r	4.7
LUMBER (11/3) millions of ft.	416.7 #	459.6	–21.6
RAIL FREIGHT (11/3) billions of ton-miles	21.4 #	21.6	4.9

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (11/14)	130	128	144
GERMAN MARK (11/14)	1.47	1.48	1.84
BRITISH POUND (11/14)	1.96	1.97	1.58
FRENCH FRANC (11/14)	4.96	4.98	6.27
CANADIAN DOLLAR (11/14)	1.16	1.16	1.17
SWISS FRANC (11/14)	1.25	1.25	1.64
MEXICAN PESO (11/14)[3]	2,927	2,923	2,639

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (11/14) $/troy oz.	383.900	385.000	–1.9
STEEL SCRAP (11/13) # 1 heavy, $/ton	107.00	107.00	8.6
FOODSTUFFS (11/12) index, 1967 = 100	209.6	211.1	–3.1
COPPER (11/10) ¢/lb.	118.6	122.0	–0.9
ALUMINUM (11/10) ¢/lb.	74.5	80.0	–1.7
WHEAT (11/10) # 2 hard, $/bu.	2.85	2.80	–34.2
COTTON (11/10) strict low middling 1-1/16 in., ¢/lb.	69.20	71.62	–1.6

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chang year ag
STOCK PRICES (11/9) S&P 500	310.71	305.76	–7.
CORPORATE BOND YIELD, Aaa (11/9)	9.38%	9.47%	5.
INDUSTRIAL MATERIALS PRICES (11/9)	103.6	105.2	–2.
BUSINESS FAILURES (11/2)	307	317	41.
REAL ESTATE LOANS (10/31) billions	$382.8	$382.5r	8.
MONEY SUPPLY, M2 (10/29) billions	$3,332.9	$3,332.4r	4.
INITIAL CLAIMS, UNEMPLOYMENT (10/27) thous.	443	454	25.

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chang year ag
BUSINESS WEEK PRODUCTION INDEX (Oct.)	179.6	181.8	1
BUSINESS WEEK LEADING INDEX (Oct.)	211.3	212.8r	–4
INDUSTRIAL PRODUCTION (Oct.) total index	109.6	110.5r	1
CAPACITY UTILIZATION (Oct.)	82.6%	83.5%r	–0

Sources: BW, CIBCR, Federal Reserve Board

MONETARY INDICATORS

	Latest week	Week ago	% Chan year a
MONEY SUPPLY, M1 (10/29)	$820.0	$818.4r	4
BANKS' BUSINESS LOANS (10/31)	319.5	318.0r	–1
FREE RESERVES (10/31)	291r	588r	–73
NONFINANCIAL COMMERCIAL PAPER (10/31)	153.6	155.5	18

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed f a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (11/13)	8.00%	7.89%	8.46
PRIME (11/14)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (11/13)	7.87	7.86	8.34
CERTIFICATES OF DEPOSIT 3-MONTH (11/14)	7.96	7.98	8.36
EURODOLLAR 3-MONTH (11/7)	7.99	7.93	8.60

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipme
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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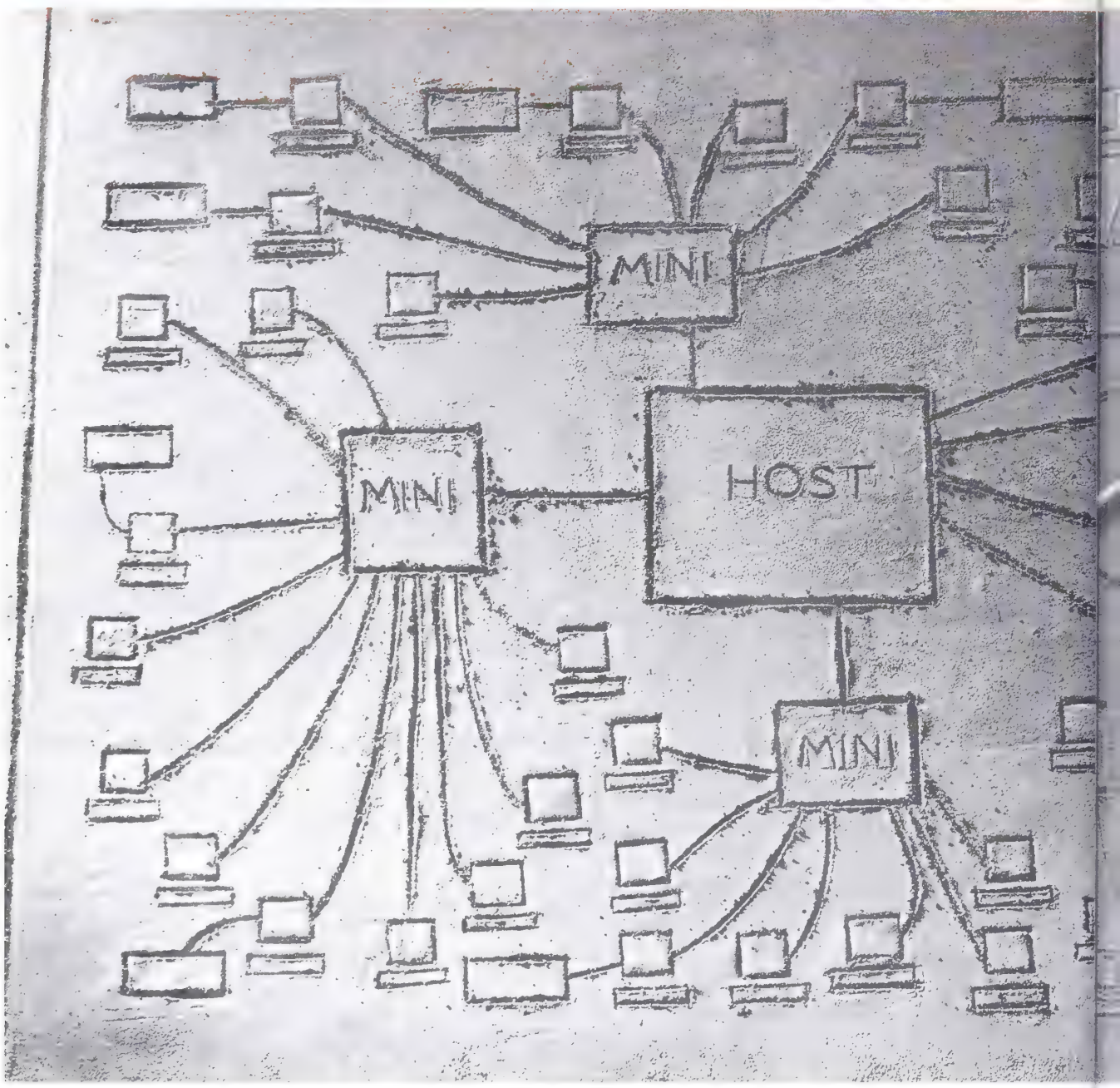


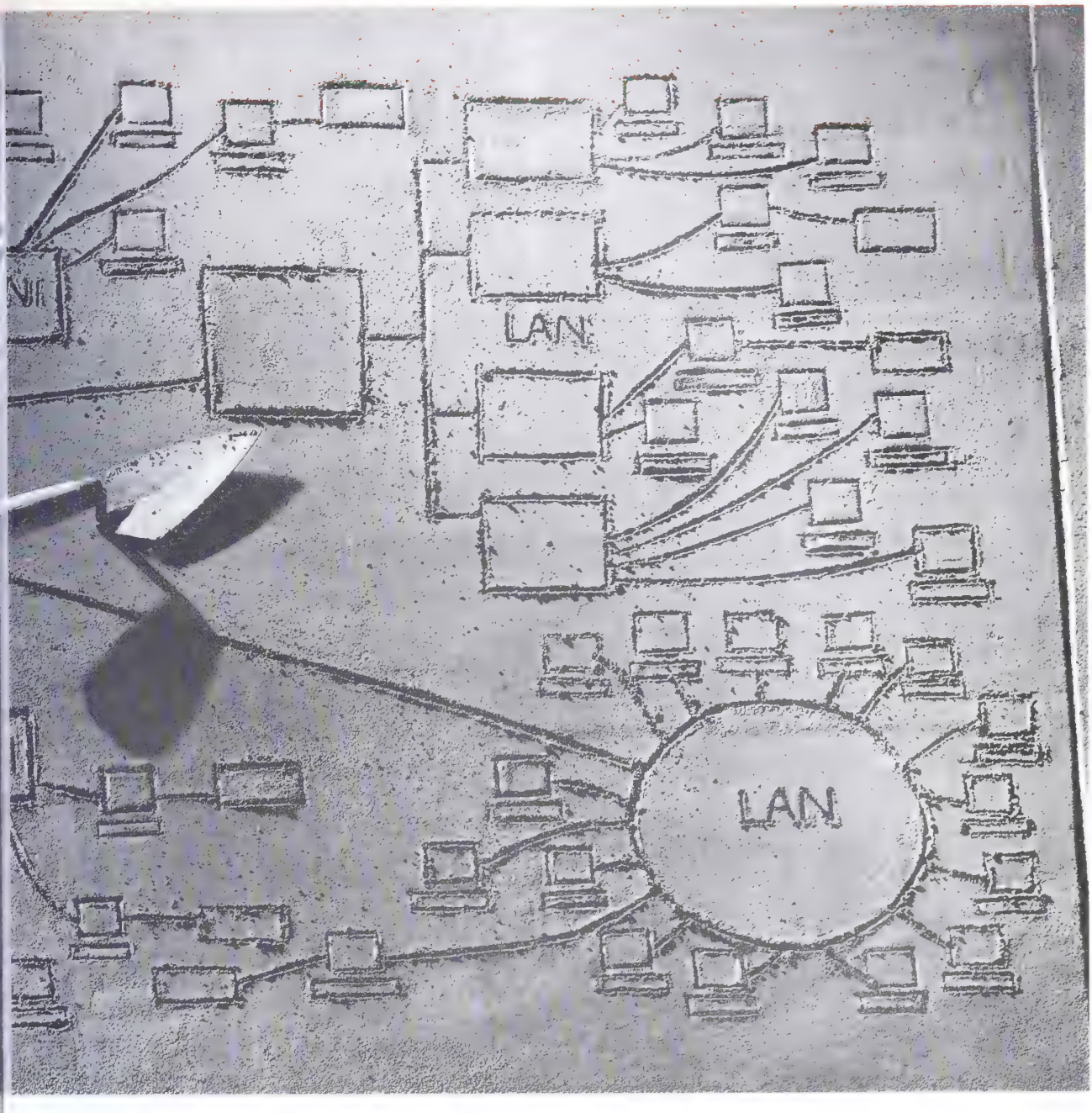
Managing Data Is H

Just ask anyone at RMC LONESTAR, the largest concrete company in Northern California.

Their 47 field offices—from Sacramento to Santa Cruz—were connected by an analog data network that was seriously limiting their growth. Employees were expending more energy maintaining the network than delivering concrete. Downtime was up, and productivity was down.

They turned to their Pacific Bell data consultant, James McDonagh, for help. He proposed replacing the analog lines with a reliable, low-maintenanc digital network, using Pacific Bel *Advanced Digital Network* and H *Capacity Digital Service* (T1).

And Pacific Bell coordinated



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that's easy to manage, problem-
free, and open to all kinds of new
applications. The difference is
like night and day."

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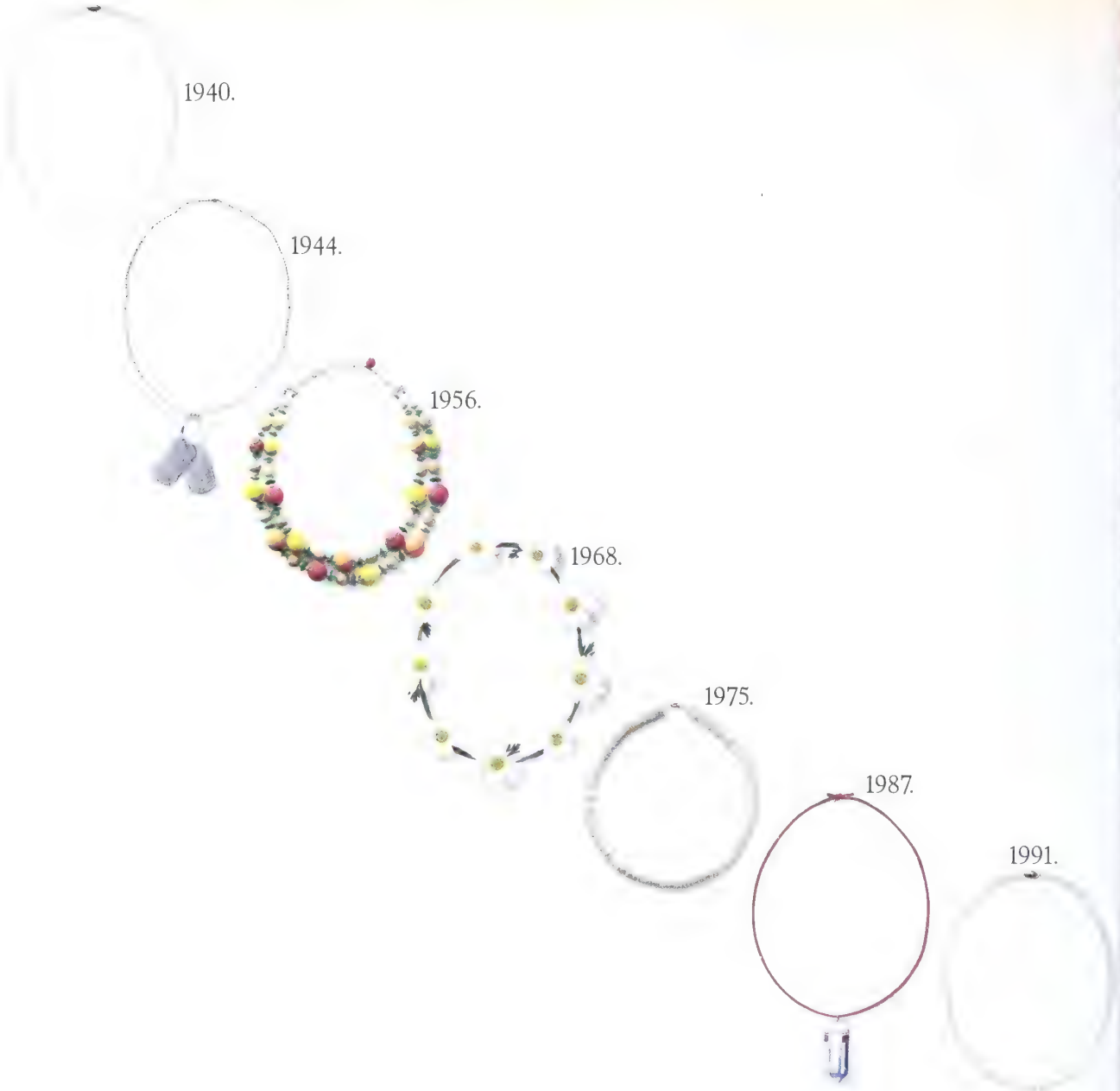

You always come back to the basics.

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Readers Report

WOMEN AT WHARTON ARE SEPARATE—AND UNEQUAL

As a 1990 graduate of the Wharton School, I especially appreciated your commentary, "Women, beware: An MBA doesn't mean equal pay" (Cover Story, Oct. 29). It is true that the wage gap is great and that there is a head-in-the-sand approach to recognizing the problem.

When I entered Wharton in September, 1988, I was a 36-year-old mother of two who had been relatively successful in the public and nonprofit sector.

Wharton, which I am sure is not very different from other top B-schools, had few women professors, no women in top academic or administrative positions, and few formal or informal avenues to reach out to women students. Even the social life was geared toward men, e.g., Thursday after-class happy hour at a bar, shooting pool. In fact, every damn picture hanging on the walls of the school was of a white male professional.

I enjoyed the academic environment and the challenge of the courses. I did not enjoy the sexist jokes in class, cases of the boss "he" and the assistant "she," the fact that most course teams were homogeneous units (all men or all women, with few mixed teams), or the fact that most extracurricular sports were geared to the guys . . . ice hockey, baseball, etc. Women got to run the school socials, fashion shows (yes!), and activities involving "culture" or travel.

Was it worth it? Yes. I am a role model for my children, enjoy my new work, know that finance is not magic, and am smarter. No, I am not, and will not be, better off financially. But then, I would probably be in the same position with any master's degree.

Patricia A. Owens
Philadelphia

THE IVORY TOWER UNDER SIEGE

As publisher of the 43-year-old *Journal of Systems Management*, I am besieged daily by just the sort of research articles you address ("Is research in the ivory tower 'fuzzy, irrelevant, pretentious'?" Cover Story, Oct. 29): theoretical submissions that are of little or no use to business practitioners. Worse yet, they are written (poorly at that, I might add) by professors who seem to know that their articles are trash, yet who unabashedly admit they really want them published "because I am up for tenure."

Bernard A. Thiel
Cleveland

Corporations that expect business schools to be an adjunct to their public-relations department or their R&D unit do not understand what the purpose is of universities.

On the other hand, business schools that present themselves as glorified consulting firms in order to attract business contributions are not being true to the historical roots of the university, either.

Marc S. Mentzer
Associate Professor of Commerce
University of Saskatchewan
Saskatoon

The irony was too much: Today, as I noted the comments of NYU's Dean Richard West, we received a visitor. He was a professor from Stanford University's economics and public policy department, who researched our archives for two hours to study railroad and steamboat rate regulation in the 1880s.

Dean West has focused on a problem

ODE TO THE CRIMSON

In BUSINESS WEEK they love to rate
The business schools that are so great.
In this year's poll, I was distressed
To find my school was not the best

Northwestern is the place, they say,
To get a top-notch MBA,
While Wharton is the place, it seems,
To fulfill all your finance dreams.

But that's all right, and that's O. K.,
Since they'll all work for me someday
—'Cause I'm a Harvard MBA.

A member of the
Harvard B-school class of 1989

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"IT WAS A REAL BLESSING," Frances Vaughn said after volunteers from the Christmas in April program gave her house a face lift.

"A whole slew of people gave up their weekend to help me. They fixed my back porch. Painted every room. Gave me a stove. They even put a brand-new roof on. I could've kissed every one of them."

This neighborly love is being rekindled all over America, thanks to Christmas in April.

Thousands of people from all walks of life are banding together to help the poor, the elderly, the handicapped.

By repairing homes, these caring volunteers are doing more than painting and hammering.

They're restoring dignity, hope and pride.

"TODAY I fell in LOVE with TWENTY perfect STRANGERS."

FRANCES VAUGHN
Washington D.C.

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The launch of Christmas in April☆USA was made possible through the commitment of many people and corporations, including a grant from the Toyota USA Foundation. We're proud to say we've been a supporter from the very start.

As a result, the national body has been able to help more communities start local programs. (The number has grown from 13 to 43 in just two years.)

Frances Vaughn is certainly thrilled the folks around Washington rallied behind Christmas in April.

In fact, she would have jumped through the roof with joy if it hadn't just been repaired.

TOYOTA

INVESTING IN THE INDIVIDUAL

Readers Report

that is real and should be of concern to our business schools. I know our exchange (traders of cash, grain, and barge freight) and many small businesses could benefit from the research efforts of our graduate busines schools, if they were directed toward our fundamental problems and challenges.

Morris L. Larson
Executive Vice-President
Merchants Exchange
St. Louis

WHERE MANUFACTURERS ARE LEADING THE WAY

Your editorial, "Missing in Action: Our Leaders" (Oct. 29), makes a good case for our current political meltdown, as you put it.

But I disagree with your assessment that things look no better in the business world. From where we sit—as a supplier of automated machine tools, factory automation systems, and automated assembly systems—we are seeing a new age of manufacturing creativity, fostered by far-sighted CEOs and young tigers in companies both large and small. Old ways are being challenged with new approaches, to reach ever-higher productivity and quality goals.

We still have a long way to go, and we are not yet reinvesting enough in the retooling of America. But in certain pockets of change, the new leadership is making things happen, and the new age is becoming a reality.

William J. Fife Jr.
Chairman and CEO
Giddings & Lewis Inc.
Fond du Lac, Wis.

DON'T SELL OFF U.S. ENTERTAINMENT AND MEDIA

Your commentary, "Japan's Hollywood: More ominous than it seems" (Entertainment, Oct. 15), adds an additional warning about America's competitive decline. Failure to implement business strategies to counter Japan's determination to achieve "synergy" between the high-tech and entertainment industries will ensure America's competitive decline in high technology in the global '90s.

Tom Satoh
President and CEO
Sean C2C Inc.
Washington

Your commentary cogently focuses on a real risk to America's future. We simply cannot economically or culturally survive massive direct foreign investment in America's media legacies.

Currently, we have the sensationalized, murky presence of Giancarlo Paretti, the Italian businessman, behi Pathe Communications' bid for MGM/U studios. Now, the proposed MCA sello raises larger, even more troubling issu than the previous selling out of RC Magnavox, Columbia Pictures, and C Records to overseas owners.

We cannot keep blithely selling o our basic electronic patents, our vast braries of movie literature, our prof able recording industry, or our extrem ly valuable information publishers any and all offshore deep pockets—wh already make our cars, clone our co puters, and supply our oil. Mortgagi our future by selling out capital r sources (direct foreign investment) is f more tragic than any present consum trade deficit.

Glenn Ralst
Indianapol

CORRECTIONS & CLARIFICATIONS

In a story about Howard J. Ruff (To of the News, Nov. 19), the display la guage incorrectly referred to his ne venture as MainStreet America. should have read, as the story di MainStreet Alliance.

IS RAISING EXCISE TAXES WHOLLY 'LAUDABLE'?

Your editorial "Good work on th budget—but" (Oct. 15) endorsed i creases in consumer excise taxes b cause of their "laudable social purpose What happened to fostering busine growth and economic expansion as t aims of tax policy?

By sanctioning laudable social pu pose, you are effectively advocating tax policy designed to control individu choice, fetter free enterprise, and evi cerate market-driven decisions.

Excise taxes drive up prices, redu consumer surplus, slow the econom and selectively displace workers in a fected industries.

The endless varieties of progra with laudable social purpose may w have created the budget deficit, and ra ing taxes on that basis certainly will n cure it.

John R. Nels
Vice-Presid
for Corporate Affa
Philip Morr
New Yo

Letters to the Editor should be sent to Reade Report, Business Week, 1221 Avenue of the Ame cas, New York, N.Y. 10020. Fax: (212) 512-44 Telex: 12-7960, Intl. 4998204. All letters must clude an address and daytime and evening te phone numbers. We reserve the right to edit lett for clarity and space.

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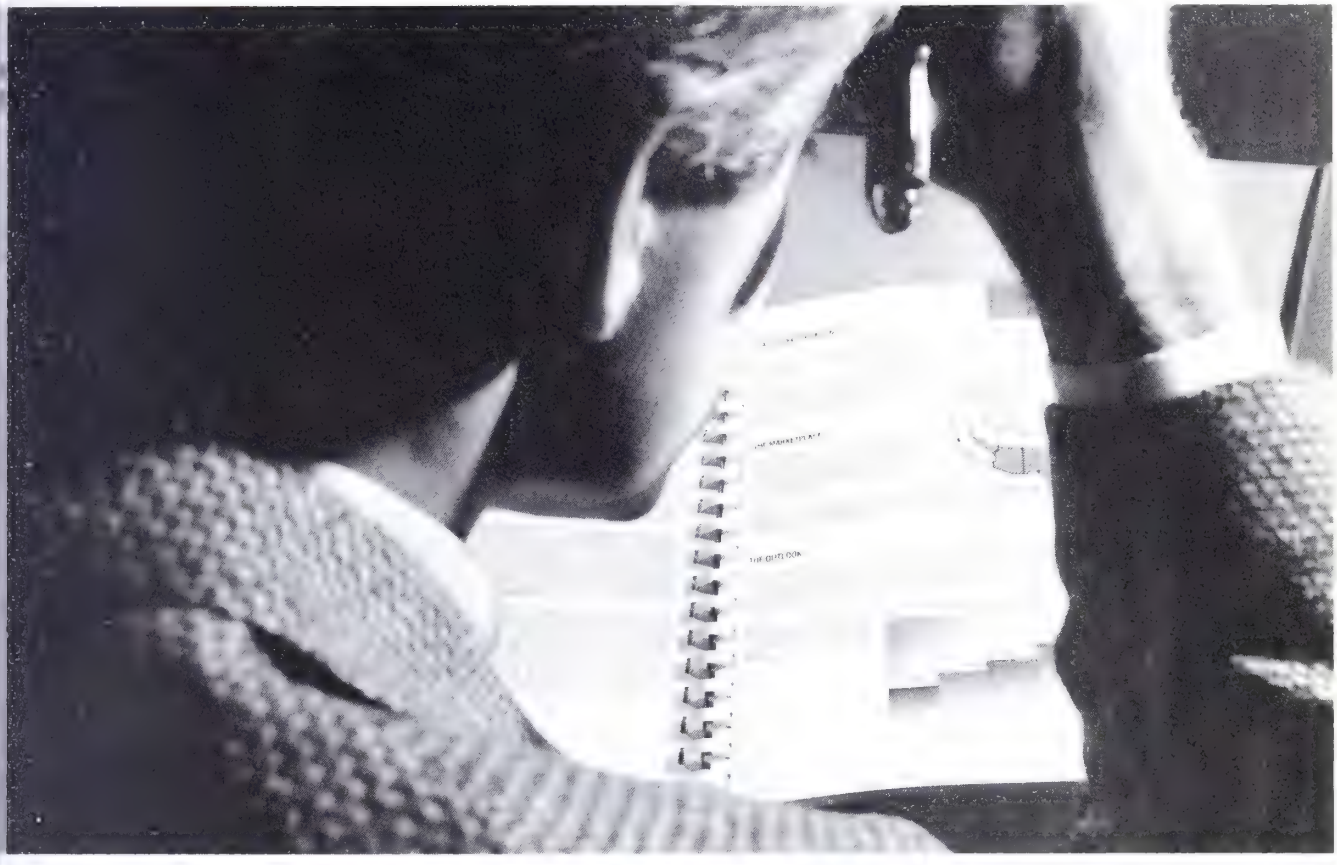

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INTERNATIONAL PAPER

REPUBLIC OF FEAR: THE INSIDE STORY OF SADDAM'S IRAQ
By Samir al-Khalil
Pantheon Books • 310pp • $12.95 (paper)

SADDAM HUSSEIN AND THE CRISIS IN THE GULF
By Judith Miller and Laurie Mylroie
Times Books • 268pp • $5.95 (paper)

IRAQ'S PROBLEM ISN'T JUST THE BUTCHER OF BAGHDAD

As the Persian Gulf crisis drags on, Americans have only a dim awareness of the kind of political system they confront in Iraq. The conflict has become personified in evil-looking Saddam Hussein. Americans can't be blamed for thinking that if our forces could just take out this mustachioed, made-for-TV villain or shock his people into getting rid of him, then our boys and girls now at risk in the sweltering desert could be home by Christmas.

THE REGIME THAT SPAWNED SADDAM IS ENTRENCHED AND PERVASIVE

The message of Samir al-Khalil's *Republic of Fear* is that the problem runs much deeper. The author, an Iraqi expatriate who writes under a pseudonym for safety, argues convincingly that Saddam is "a very special leader" comparable to Hitler or Stalin. That's not, as President Bush seems to think, just because he's a bad guy. Rather, Saddam commands and is the product of a tenacious and pervasive organization that uses fear to hold on to power.

Iraqis have been so terrorized, Khalil shows, that hopes for a coup may be wishful thinking. And even were Saddam to go, his Ba'ath Party, which calls for reuniting the Arab world under one right-thinking regime, might well replace him with another menacing leader.

The book went unnoticed when University of California Press published it last year. Then, Saddam invaded Kuwait, and *Republic* became must-reading for Mideast watchers. The book, now out in paperback, is tough going: It's dry and academic and assumes the reader knows Iraq's recent history. But it offers unique insights into the thinking and inner workings of Saddam's regime.

Republic has been joined in the stores by *Saddam Hussein and the Crisis in the Gulf*, a "quickie" book written in three weeks by Judith Miller and Laurie Mylroie. While largely a synthesis of others' work, their book puts much essential background material on Iraq into one volume. Miller, who is covering the crisis for *The New York Times*, and Mylroie, a former Harvard University professor, also serve up plenty of biographical detail on Saddam.

They tell us, for example, that Saddam, born in 1937 in Takrit, a backwater but nevertheless a spawning ground for army officers, was too poor a student to enter the military academy. While this is a serious deficiency in an Arab revolutionary, he made up for it by establishing his bona fides as an assassin and torturer. After the Ba'ath seized power in 1968, Saddam devoted himself to creating a vast secret-police network. In 1979, he inaugurated his presidency by executing at least 20 top aides. In a trademark Ba'athist maneuver, the authors report, he forced surviving officials to join the firing squads.

Khalil, as an Iraqi, excels at describing the nightmare society the Ba'ath have created. Children are encouraged to report on their parents. A teacher who jokes about Saddam's clothes disappears, along with her family, for two weeks. Thousands of less fortunate detainees never return—or their corpses come home in sealed black coffins.

Khalil ruefully terms this black-box ritual a mark of the regime's success. The Ba'ath used to hang its enemies i Baghdad's main square, but now ther is no need for public executions. A popu lace that once prided itself on obstrepe ousness is "subdued and silent . . . an can be made to believe anything."

What Saddam wants the people to b lieve is Ba'athist "analysis." Ba'athist blame the backwardness of much of th Arab world on its being carved into arb trary territories by the West when th Ottoman Empire fell after World War Reuniting the area is a sacred goal tha justifies any level of violence agains their enemies. Party founder Miche Aflaq wrote: "When we are cruel to otl ers our cruelty is in order to bring ther back to their true selves, of which the are ignorant."

Such thinking, says Khalil, explain Saddam's willingness to drop poison ga on the villages of Iraq' separatist Kurdish m nority and to relocat hundreds of thousand of the non-Arab Kurd to the desert. For Kha lil, there is no doub that had Saddam had nuclear weapon, h would have used i against Iran in thei 1980-88 war.

Khalil sees Saddam' launching of that war– dubbed "Saddam's Cru sade" in Iraq—as a sig that he has succumbe to his own propagand about the power of his cause and hi military. Saddam thought the Iranians near-worship of Khomeini regressiv and felt his invasion would make th Ayatollah's revolution collapse. He als assumed that natives of the border pro ince of Khuzistan, being Arab, woul side with the Iraqis against the nor Arab Iranians. He was wrong on bot counts: 120,000 Iraqis died in the wa and 300,000 were wounded. Yet his tigh control at home let him get away with i

Similar miscalculations led Saddam t grab Kuwait. To him, the oil-sodde emirate was an "artificial" state create by "Western imperialists." Foreigner did the work, and earnings were inves ed abroad. In Ba'athist thinking, Kuwa cried out to be joined to Iraq. Saddar convinced himself that the U. S. lacke the will to seriously challenge him.

Wrong again. But that's small com fort. While U. S. policy is focused o resolving the immediate crisis, whethe through economic sanctions or militar action, Khalil makes it clear that there' no easy way to influence or eliminat Saddam. Moreover, getting rid of hir wouldn't guarantee a change in Iraq'

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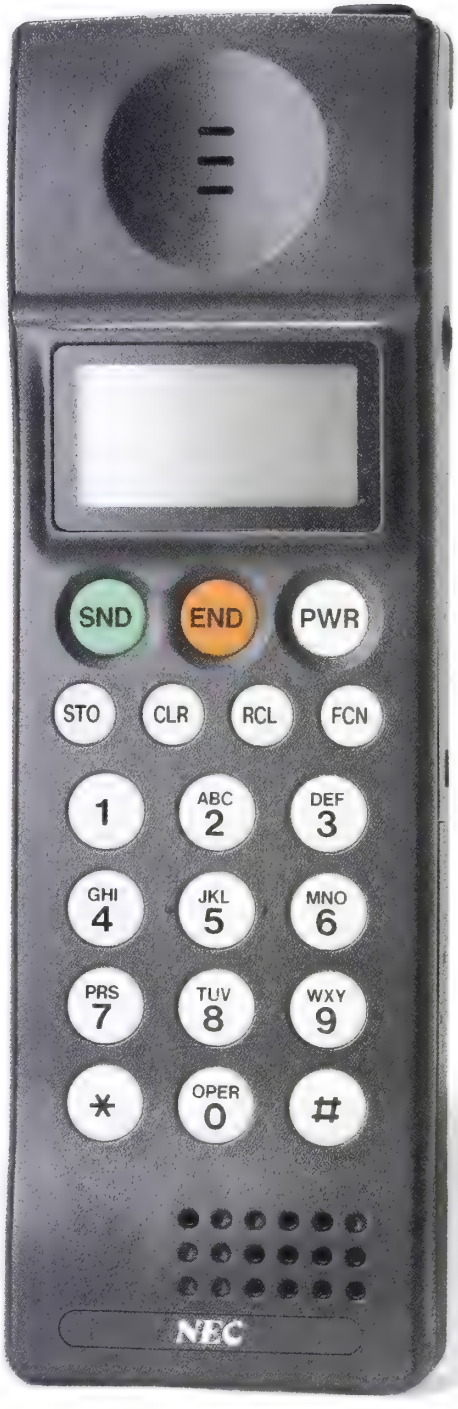

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Books

behavior. What's needed is a long-terr strategy for containment that looks be yond Saddam to the deeply entrenche regime that has spawned him.

BY STANLEY REE

Reed reported from Iraq in Septembe

BOOK BRIEFS

FUZZY MEMORIES

AN AMERICAN LIFE
By Ronald Reagan
Simon & Schuster • 748pp • $24.95

Ronald Reagan's memoir confirm everything about him that infur ated Democrats, charmed voters and amused and sometimes horrifie those close to him during his Presidency "Out to lunch" is not an unsuitable de scription. In this rambling reminiscence Reagan recalls more clearly a tast meal, a horse ride at Rancho Del Ciel or having showered and donned his paja mas just before a momentous event tha he recalls the substance of his policies

Reagan still insists that the federa deficit mushroomed during his Presider cy because government spending wasn' cut enough. "Presidents don't cut def cits, Congress does," he asserts, whil neglecting to mention that he fostere the largest tax cuts and the biggest mil tary buildup in peacetime history. An he's still trying to get to the bottom o Iran-*contra*. Well, there he goes again

But the book also conveys just why s many loved Reagan so much. He under stands a couple of ideals that are deepl embedded in the American psyche. Firs when it comes to foreign policy, Amer cans want to be No. 1. Second, they wo ship at the altar of economic growth an individual initiative. Reagan hates taxe (being in a 94% bracket as a Hollywoo actor, he says, discouraged him fro working). And he despises bureaucrats a hatred that began when, he contends he saw federal welfare workers sabo tage the efforts of his father, as head o the Works Progress Administration o fice in Dixon, Ill., to find people jobs.

Reagan seems to view life as thoug he were starring in a movie—one tha verges on the surreal. He is sorry fo Ferdinand and Imelda Marcos becaus "we couldn't help but remember hov well they had lived." And, like the mov ies, he glosses over or omits things. Fo someone so gifted at making American believe in themselves and at articulatin broad themes such as the benefits o free trade, he pulls the wool over hi eyes too often. Yes, he provided eigh years of prosperity. But his policies wi cause economic hardships for decades.

BY DOUGLAS A. HARBRECH

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At Braun, we regard shaving as something you do *for* your face, rather than *to* it.

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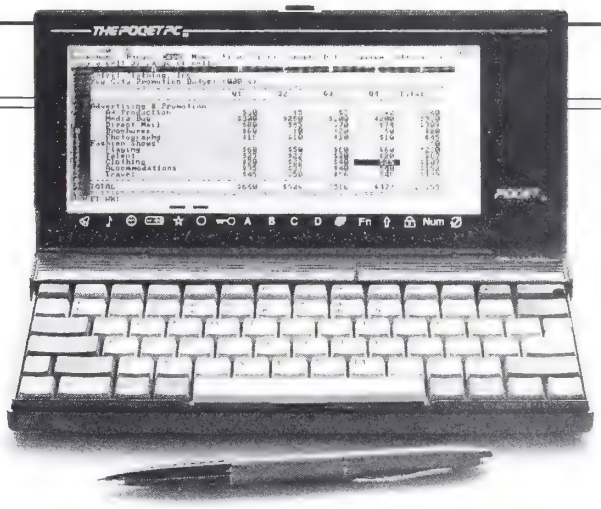

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YOUR TAX DOLLARS ARE AT WORK —ON THE WRONG JOBS

BY GARY S. BECKER

Government now gobbles up nearly 40% of GNP. And at every level, it fails to deliver the services voters deserve. But that may be changing—thanks to a growing taxpayer revolt

GARY S. BECKER IS UNIVERSITY PROFESSOR OF ECONOMICS AND SOCIOLOGY AT THE UNIVERSITY OF CHICAGO

The surprisingly narrow victories of Senator Bill Bradley (D-N. J.) and many other incumbents in the recent elections dramatically show how fed up taxpayers are with politics as usual. American voters have lost faith in those they have come to consider agents of special interest groups.

People looking for money from the government had an easy time during the 1960s and '70s. The share of gross national product spent by federal, state, and local governments rose from 27% in 1960 to 37% in 1982. Nonmilitary spending rose even faster. The big winners were Social Security, medicare, food stamps, welfare, and other entitlements, which climbed to almost half of federal spending, while defense outlays declined from more than two-fifths of the federal budget in 1960 to just a little over a quarter in 1982.

OUTRAGE AND OUTPUT. Most voters may not be aware that they work nearly 40% of the time for the government. But they have realized that, whatever the amount, they do not get enough in return to justify the burden. The problem is that the thousands of interest groups competing for government handouts do not have to consider the cost, because the burden is imposed on others. As a result, the social benefits of government spending are often less than the social costs of the taxes and regulations that help pay for them.

Equally disturbing, the effort of catering to the demands of so many special interests diverts government attention and expenditures away from what it should be doing: activities that cannot be handled efficiently by the private sector. These include financing roads, airports, schools, and other forms of infrastructure; providing a safety net for those who cannot make it on their own; protecting against crime and foreign aggression; and managing government budgets responsibly so that outlays and revenues balance.

It is hard to judge the military, but governments in the U. S. are failing at nearly everything else. Roads are obstacle courses, airports are crowded, and bridges often seem on their last legs. Fear of crime dominates life in cities far more than in the early 1960s. Despite large increases in spending on schools, most students are poorly educated, especially minority members in big cities. Even with the enormous amounts spent on the poor, holes in the safety net are not getting smaller—and may be getting larger. The federal budget deficits of the 1980s and the fiscal problems of Philadelphia and New York and in Massachusetts and New Jersey—among other cities and states—indicate clearly that governments at all levels are not keeping their houses in order.

With taxes taking such a large share of GNP, the perception in Congress and the media that the budget "crisis" is attributable to insufficient taxation is hardly credible. Rather, government revenues are misallocated, with too much spent on bad programs and not enough attention paid to designing essential ones. Efforts to improve the lot of the poor and to repair the rotting infrastructure get sidetracked by spending on such things as agricultural price supports and by investigations into price "gouging" by the gasoline industry. Is it any surprise that governments are so ineffective at what they should be doing when they are doing so many other things too?

In trying to reduce the deficit, Congress and the President should have concentrated on cutting spending—and spending more wisely—instead of raising taxes on the rich and others. Prime candidates for cuts include farm and urban subsidies, defense, assistance to various industries, and benefits that go to the middle and upper classes. President Bush made a major policy error as well as a political blunder by reneging on his promise of no new taxes.

POWER TO THE PEOPLE. Yet there is a faint ray of hope that we are beginning to develop greater control over government spending. Taxpayers are getting better organized and are offering more resistance. This started with Proposition 13 and the California rebellion in the late 1970s. Taxpayer opposition then spread to other states, to cities, and to the federal government with the Tax Reform Act of 1986 and the Gramm-Rudman Act. Although some ballot proposals to limit spending were defeated last week, nearly every initiative to issue new bonds was rejected.

Even the persistent budget deficits of the 1980s are a sign of the greater political power of taxpayers. Interest-group pressure for more spending was as strong during the 1980s as in earlier decades, but taxpayer opposition means that greater spending could no longer be readily financed with higher taxes.

Taxpayer resistance may also have forced the expansion of government spending to slow down. The fact is that the share of GNP absorbed by governmental programs, including Social Security and other transfer payments, has hardly grown since 1982.

It is too early to be confident that the growth of government has been permanently curtailed. But only if that is true can one reasonably expect to see more balanced budgets, sizable improvements in schools or the infrastructure, significant progress in fighting poverty and crime, and generally a better reconsensus on what should be the principal concerns of government.

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Mr. McCormack studied law at Yale, taught it to the military and later joined the law firm of which he is still a partner.

As a golfer, he qualified for several U.S. and British Amateurs and one U.S. Open.

His business evolved from this rare combination of talents. Golfing led him to his first client, Arnold Palmer. His legal training established their professional relationship.

Two decades later, International Management Group, founded and directed by Mark Hume McCormack, is the largest organization of its kind in the world. And its services are as multi-faceted as its founder, ranging from sports marketing to television production, celebrity representation to money management.

Mark McCormack lives a jet-paced life. He travels constantly, meeting with clients, lecturing and visiting his more than 40 offices from London to New York, Sydney and Hong Kong.

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occupational diseases and injuries. We
d work closely with workers on-site, so
:an be trained in the very latest safety
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We should also give more attention to qual-
habilitation and suitable alternative employ-
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:iginal job.

Most importantly, we should get injured
ers into the system faster from the very be-
ng—and insure more efficient, personalized
v-through.

All these things are possible, if we work to-
:r to support the system that's been support-
ur workers for over 75 years.

What You Should Do

You can help by doing one of two things.

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Or two: Share your views by writing to Gary Countryman, President and CEO of Liberty Mutual, 175 Berkeley Street, Boston, MA 02117. We'll help you get in touch with people in your state who can help.

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:ause When A Worker Has An Accident, Everybody Gets Hurt.

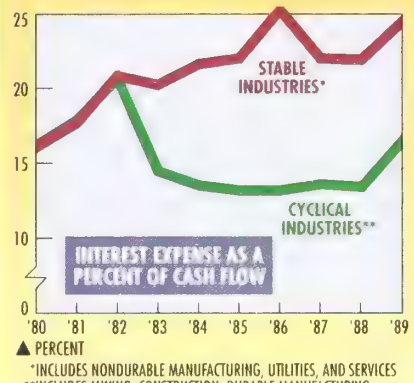
BY KATHLEEN MADIGAN

O.K., SO THE DEBT SPREE WASN'T ALL THAT RISKY

Corporate America went on a debt binge in the 1980s. But Stephen S. Roach, senior economist at Morgan Stanley & Co., has calculated that while some industries feasted on junk bonds and commercial paper, the excess leverage will do surprisingly little damage to the economy in 1991.

Roach divided debt holders into two categories: stable industries, which are hurt less during a recession because demand for their products stays fairly steady, and cyclical sectors, which get hit hard during an economic contraction.

NOT EVERYONE WENT ON A DEBT BINGE IN THE 1980s



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DATA: MORGAN STANLEY & CO.

Roach found that 70% of the debt accumulated in the 1980s was taken on by the stable sector and only 30% by cyclical industries. As a result, stable companies on average had to use 25% of their cash flow to pay interest costs in 1989, up from 16% in 1980. But the more prudent borrowers in cyclical industries needed to spend just 16.3%, not much different from their 16.1% debt-burden ratio at the start of the decade (chart).

Roach believes borrowing patterns are different because cyclical companies are well aware of their cash-flow vulnerability, so they don't tap debt much. But stable industries take advantage of U. S. tax codes that favor debt over equity.

Roach projects that the most indebted companies should have enough cash to service their IOUs even as the economy slides. Of course, there are still risks in the less-leveraged cyclical sector. Roach notes that borrowers in retail trade, where the debt burden was 21.1% in 1989, could be in for some problems.

But all in all, he argues, characterizing debt as the major villain in the coming recessionary drama may be a bit of miscasting. More likely, Roach says, the leveraging of the 1980s will play only a small part in next year's economic saga.

THE BIG APPLE MAY BE SOUR FOR A LONG SPELL

Nobody doubts that New York's economy is in recession. The only question is: How long will it last? How about three or four years longer, say economists at the Federal Home Loan Bank Board of New York.

"There just isn't anything to jumpstart the New York economy," says Rae D. Rosen, economist at the FHLBB. Corporate restructurings and more layoffs are in the cards for Wall Street and the telecommunications and banking industries. A growing glut of office space means little demand for construction. And shortfalls in the state and city budgets will mean layoffs and higher taxes.

A bigger tax bill, in turn, will cut take-home pay, which will hurt the already ailing retail sector and hamper growth in service industries. Moreover, more middle-class families and businesses will move beyond the Big Apple's borders.

According to Rosen's projections, the economy will turn around after the competition for tenants causes a sharp drop in rents for both office space and housing. As real estate gets cheaper, Rosen says, companies will be attracted back to New York. Similar declines in rents and in home prices will also bring families back to the area, she says.

Until then, New York faces some tough times. That means more red ink in the city budget. Already, Mayor David Dinkins' administration is wrestling with a projected deficit of $1.6 billion in the fiscal year starting next July.

THIS TIME, EASING FROM THE FED MIGHT BACKFIRE

In light of the recent weak economic statistics, the Federal Reserve Board is expected to shave one-fourth of a percentage point from the Fed funds rate, now fluctuating between 7¾% and 8%. But Gary L. Ciminero, chief economist at Fleet/Norstar Financial Group, fears that the easing move may put the financial system in a tighter bind than before.

Usually, when the central bank drops the Fed funds rate—the rate on overnight borrowings among banks—banks cut their own interest rates and increase lending. But not this time. "Banks want to be liquid," Ciminero says, because of pressure from bank examiners to shore up balance sheets. So instead of lending many banks are opting to invest their deposit money in short-term securities including Fed funds. Since the result is a bigger supply of Fed funds than demand for them, the Fed has to take some money out of the system to keep the funds rate where the central bank wants. The irony, says Ciminero, is that "if the Fed drains enough of those short-term funds to keep Fed funds at 8%, then they are actually tightening."

To stimulate lending, Ciminero expects a half-point drop in the Fed funds rate soon. The Fed doesn't normally make such a large cut, but it may need a big move to jolt banks back into the business of making loans.

JUST HOW DEEP DO RATES DROP IN A RECESSION?

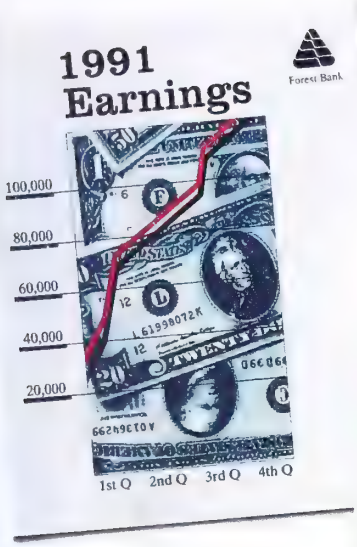
Recession has become the consensus forecast, with many economists calculating that the downturn has already started. And a recession usually means lower interest rates, since borrowing needs subside. With that in mind, Samuel D. Kahan, chief economist at Fuji Securities Inc., wanted to know how much of a rate cut investors might expect.

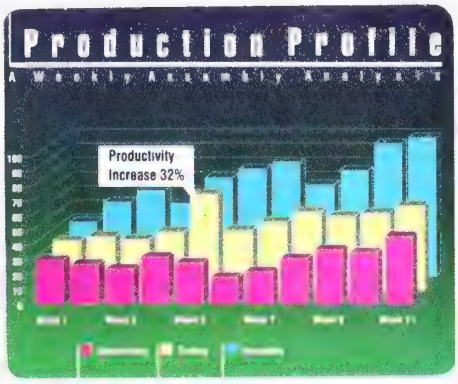
Looking at the previous seven postwar downturns, Kahan found that short-term interest rates were on average cut in half during a recession. Excluding the period in 1980 when the Federal Reserve continued to tighten into the recession, Kahan found that one-third of the rate decline happened within the first three months of the downturn. Rates then dropped throughout the recession.

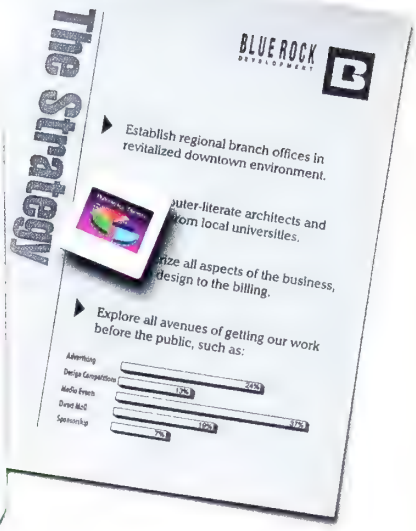
"Long-term yields also declined," says Kahan, "but not as precipitously as short-term rates," because inflation fears tend to stick around even as the economy begins to contract. However, as recession took hold, Kahan calculated long-term interest rates dropped by about 10%. These rates continued to drop even after the economy revived, since inflation remained subdued.

Using history as a guide and assuming a recession began in October, Kahan projects that the Fed funds rate should be at 7% by the beginning of next year and then drop another full percentage point by the summer of 1991. Long-term rates, now at 8.55%, are likely to hold steady for the rest of this year and then approach the 8% mark by mid-1991.

Applause.







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WOULD YOU ASK AN AMATEUR WHICH ONE TO CHOOSE?

Today, since the financial market has the world as its playing field, it's important to know how to play the game with the best tools available. The bank which has been taking a lead in these trends is BCI, the Italian bank with the most international outlook and vocation. An ideal partner, the bank can supply highly specialized assistance to the business decision process. In New York, for example, the heart of finance, we have specialized personnel, both Italian and American, and we can offer an optimum integration of contacts in the two different markets. This gives our clients many advantages in their domestic and international activities. And naturally, we can offer all the most advanced and personalized options such as short and medium term loans, syndicated and non-syndicated, financing for acquisitions and mergers, trade financing, currency and interest rate swaps, options and other innovative products. If you're a player in the international game, we can offer you the winning mix of financial technology and individual creative solutions.

BANCA COMMERCIALE ITALIANA

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WE'VE MADE OUR LEASE AS TROUBLE-FREE AS OUR CARS.

Introducing *Buick Custom Care*, the ultimate service program for Park Avenue SmartLease℠ customers.

The 1991 Park Avenue and Park Avenue Ultra are some of the most sophisticated six-passenger sedans Buick has ever offered. They are equipped with a long list of standard features, including anti-lock brakes, driver's-side Supplemental Inflatable Restraint system and 3800 V-6 engine with tuned-port injection.

And now, even the service is standard when you SmartLease℠ a 1991 Park Avenue or Park Avenue Ultra on some eligible lease plans.

Buick Custom Care provides all scheduled maintenance at virtually no charge, including regular tune-ups, oil changes, tire rotation, brake service—even towing and rental reimbursements, if necessary.

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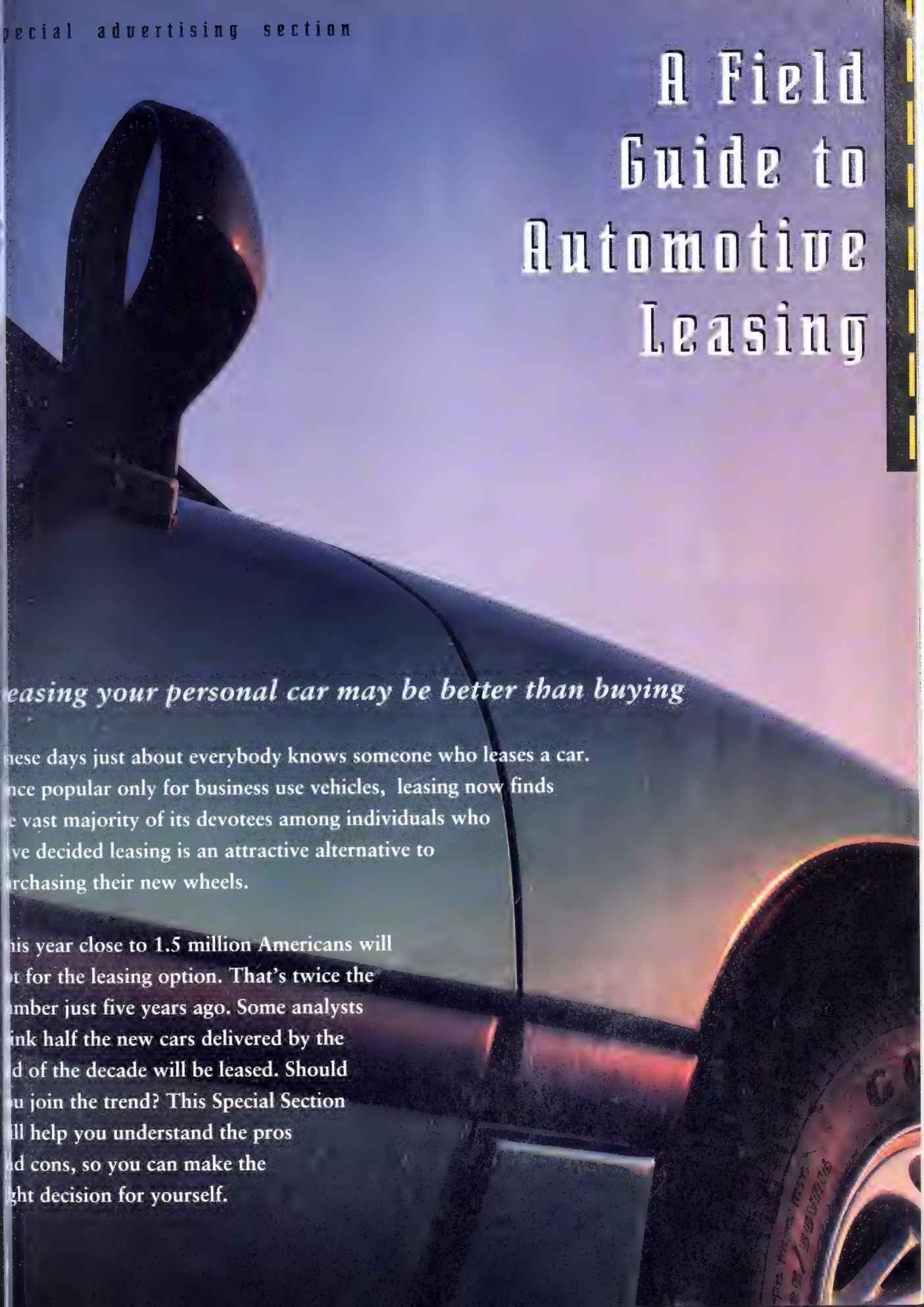
A Field Guide to Automotive Leasing



easing your personal car may be better than buying

hese days just about everybody knows someone who leases a car. nce popular only for business use vehicles, leasing now finds e vast majority of its devotees among individuals who ve decided leasing is an attractive alternative to rchasing their new wheels.

his year close to 1.5 million Americans will t for the leasing option. That's twice the mber just five years ago. Some analysts ink half the new cars delivered by the d of the decade will be leased. Should u join the trend? This Special Section ll help you understand the pros d cons, so you can make the ght decision for yourself.

A Field Guide to Automotive Leasing

Chances are you've considered leasing your next car. If you're like most consumers, though, you've found the subject confusing. Even the terminology seems different. So how can you make an intelligent assessment?

1991 Cadillac Allante

If it's been a few years since you looked into leasing, you can start by forgetting almost everything you think you know about the subject. Times have changed.

And if you've never really considered the leasing option before, you'll be pleased to discover it's a flexible and easy-to-understand alternative to retail buying.

What about selection? These days you can lease virtually anything on four wheels. So if you think the leasing option applies only to exotic luxury cars, think again. It's just as easy to lease an economy car, pickup truck or sport utility vehicle. In fact, you can even lease *used* cars today.

"Anyone who is in the market for an automobile or truck should think about the leasing alternative," declares Leo C. Larkin, vice-president of marketing for Ford Motor Credit Corp. "If you can trade your current vehicle, you can lease a new one."

Nailing Down The Basics

Yes, but should you? To nail down the specific differences between buying and leasing, make sure you do your shopping at a dealership that offers both ownership alternatives...and can explain the pros and cons of each one clearly. Not every dealer takes leasing seriously, so be choosy when you shop.

That's particularly important because comparing the differences between buying and leasing aren't as easy as they might seem. Consumers aren't yet protected by standard "truth-in-leasing" laws comparable to the "truth-in-lending" statutes in each state. There are no uniform rules for disclosing the terms of a lease.

The problem is compounded by the fact that leasing has its own lexicon of terms. You can avoid

Ford

ORD • MERCURY • LINCOLN • FORD TRUCK

Yes. I'd like more information about Ford Credit's Red Carpet Lease.

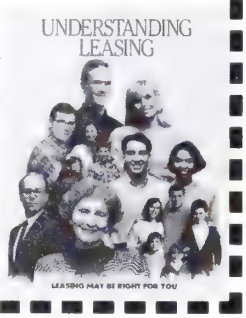
NAME

ADDRESS

CITY

STATE ZIP

Mail to: Understanding Leasing
P.O. Box 2909
Farmington Hills, MI 48333



CUT THIS OUT

AND CUT OUT YEARS OF THESE.

/HY PAY FOR THE WHOLE CAR WHEN YOU ONLY WANT A FEW YEARS' WORTH?

ith Ford Credit's Red Carpet Lease, you ly pay for the part of the car you use. We ce the total cost of the car, then deduct its aranteed future value. Your payments are e difference, plus a lease charge based on e total cost of the vehicle.

hat's how you can make your monthly yment very affordable. And put yourself in iew car more often. Sound good? Want to learn more about leasing? Our booklet, "*Understanding Leasing*" explains all the advantages of a Red Carpet Lease and it's free. Cut out the coupon and send for it. Or, if you don't want to put a hole in your magazine, call the toll-free number below. Find out why a Red Carpet Lease just might be the most practical, most economical way to enjoy your Ford, Mercury or Lincoln. Do it today.

Red Carpet Lease. Ford Credit Vehicle Leasing Plan

ALL 1-800-421-0494. OR SEE YOUR LOCAL FORD OR LINCOLN-MERCURY DEALER

Buckle up—together we can save lives

DEALER LMDA ADVERTISING FORD DEALER FDAF ADVERTISING

LEASING COMPARISON CHART

The BUSINESS WEEK Lease/Financing Comparison Chart below is developed as a simple guide to aid your analy... Leasing versus Financing (ownership). It is provided to help you in your study of the cost variables involved in deci... between a lease plan and a purchase plan over a similar period of time.

The difference in costs involved between leasing your vehicle of choice and financing it, varies according to the term... your agreement and the model vehicle you choose. There are several factors in a lease plan which you should be au... of. For instance, usually you have the option to purchase your leased vehicle at the end of the lease period if you ch... to, but you should negotiate the option price before you agree to start your lease.

Terms described below are typical examples provided by the respective companies representing the automobiles identified... the chart. Lease and finance terms may vary from dealer to dealer and are subject to change. Dealer contributions may af... the final negotiated transaction price for both lease and/or finance contracts at inception. Lease and finance terms may be... affected by a number of factors, such as model choice, options etc. The reader should confirm all details of a lease or fina... contract with the dealer before comparing one company's terms with another.

	1991 AUDI 100		BUICK '91 REGAL CUSTOM SEDAN		CHEVROLET '91 C... 4 DR NOTC...	
Manufacturer's Suggested Retail Price	$28,975.00		$16,395.00		[7]$11,361.00	
No. Months for Lease/ Finance Program	**36 Month Lease**	**36 Month Finance**	**36 Month Lease**	**36 Month Finance**	**36 Month Lease**	**36 Month ...**
Monthly Payment	$498.95	$783.09	$270.41	$448.11	$158.02	$279....
Cash Down Payment	-0-	$2,898.00	$3,000.00	$3,000.00	$2,500.00	$2,500....
Refundable Security Payment	$500.00	NA	$275.00	NA	$175.00	N...
[4]Total Cash Due at Inception	$998.95	$2,898.00	$3,541.45	$3,448.11	$2,833.12	$2,500....
[1&2]Total Amount of Payments	$17,962.20	$28,191.24	$9,734.76	$16,131.96	$5,688.72	$10,069....
Alternative: Monthly Payment Without Down Payment	NA	NA	$363.15	$548.47	$235.30	$363....
End of Lease Term Purchase Option is Available for:	Closed-end lease– no purchase option	NA	$6,853.11	NA		
Total Mileage Allowed	$50,000.00	NA	$45,000.00	NA	$45,000.00	N...
Excess Mileage Charge	10¢/mi	NA	10¢/mi	NA	10¢/mi	N...
Financing Based on an Annual Percentage Rate of:	[6]NA	12.00%	[6]NA	12.50%	[6]NA	12.50...

Notes:

[1] The total amount of payments in a lease transaction is the total amount paid for the use of the vehicle. For the total am... scheduled payments, deduct the down payment if any, shown above. The total amount of payments in a financing tran... the total amount paid by the consumer to become owner of the vehicle.

[2] Consumer will have no further liability at the end of the lease unless there is excessive wear and use, or other than any ... fees or taxes imposed.

[3] Lease inception cost and total amount of payments include first monthly payments, refundable security deposit and lea... $1,000.00 for 36 month lease.

[4] Plus applicable taxes and license fee.

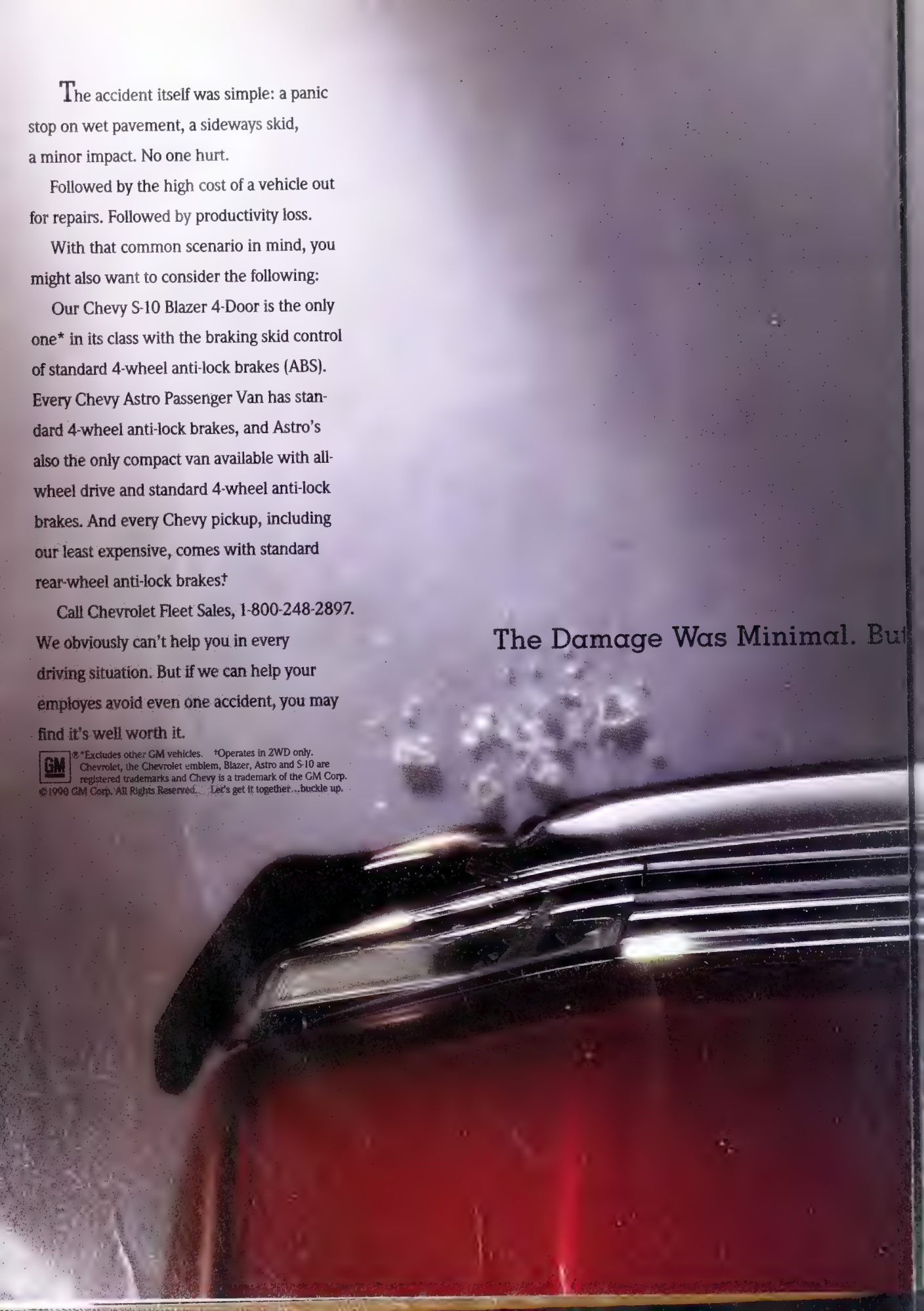
LEASING COMPARISON CHART

$21,465.00		$19,557.00		$30,038.00	
th Lease	36 Month Finance	36 Month Lease	36 Month Finance	48 Month Lease	48 Month Finance
39.21	$537.32	$315.95	$599.57	$416.21	$639.47
93.00	$4,293.00	$1,700.00	$1,700.00	$5,979.64	$5,979.64
00.00	NA	$325.00	NA	$425.00	NA
82.21	$4,293.00	[5]$3,024.00	$1,700.00	$6,820.85	$5979.64
04.56	$23,636.52	$16,395.24	$24,588.80	$25,957.72	$36,674.20
22.06	$671.65	-0-	-0-	NA	NA
86.00	NA	$8,800.65	NA	Purchase price to be determined with the dealer at lease inception	NA
00.00	NA	$60,000.00	NA	$45,000.00	NA
8¢/mi	NA	.08¢/mi	NA	11¢/mi	NA
[6]NA	7.90%	[6]NA	12.75%	[6]NA	12.50%

udes $500 Gold Key lease which must be included at inception of the lease.

re is a charge imposed for the privilege of making the rental payments due under a lease, but it is not disclosed in the lease as nnual percentage rate.

udes $500.00 national rebate.



The Damage Was Minimal. But

The accident itself was simple: a panic stop on wet pavement, a sideways skid, a minor impact. No one hurt.

Followed by the high cost of a vehicle out for repairs. Followed by productivity loss.

With that common scenario in mind, you might also want to consider the following:

Our Chevy S-10 Blazer 4-Door is the only one* in its class with the braking skid control of standard 4-wheel anti-lock brakes (ABS). Every Chevy Astro Passenger Van has standard 4-wheel anti-lock brakes, and Astro's also the only compact van available with all-wheel drive and standard 4-wheel anti-lock brakes. And every Chevy pickup, including our least expensive, comes with standard rear-wheel anti-lock brakes.†

Call Chevrolet Fleet Sales, 1-800-248-2897. We obviously can't help you in every driving situation. But if we can help your employes avoid even one accident, you may find it's well worth it.

GM

®*Excludes other GM vehicles. †Operates in 2WD only. Chevrolet, the Chevrolet emblem, Blazer, Astro and S-10 are registered trademarks and Chevy is a trademark of the GM Corp.
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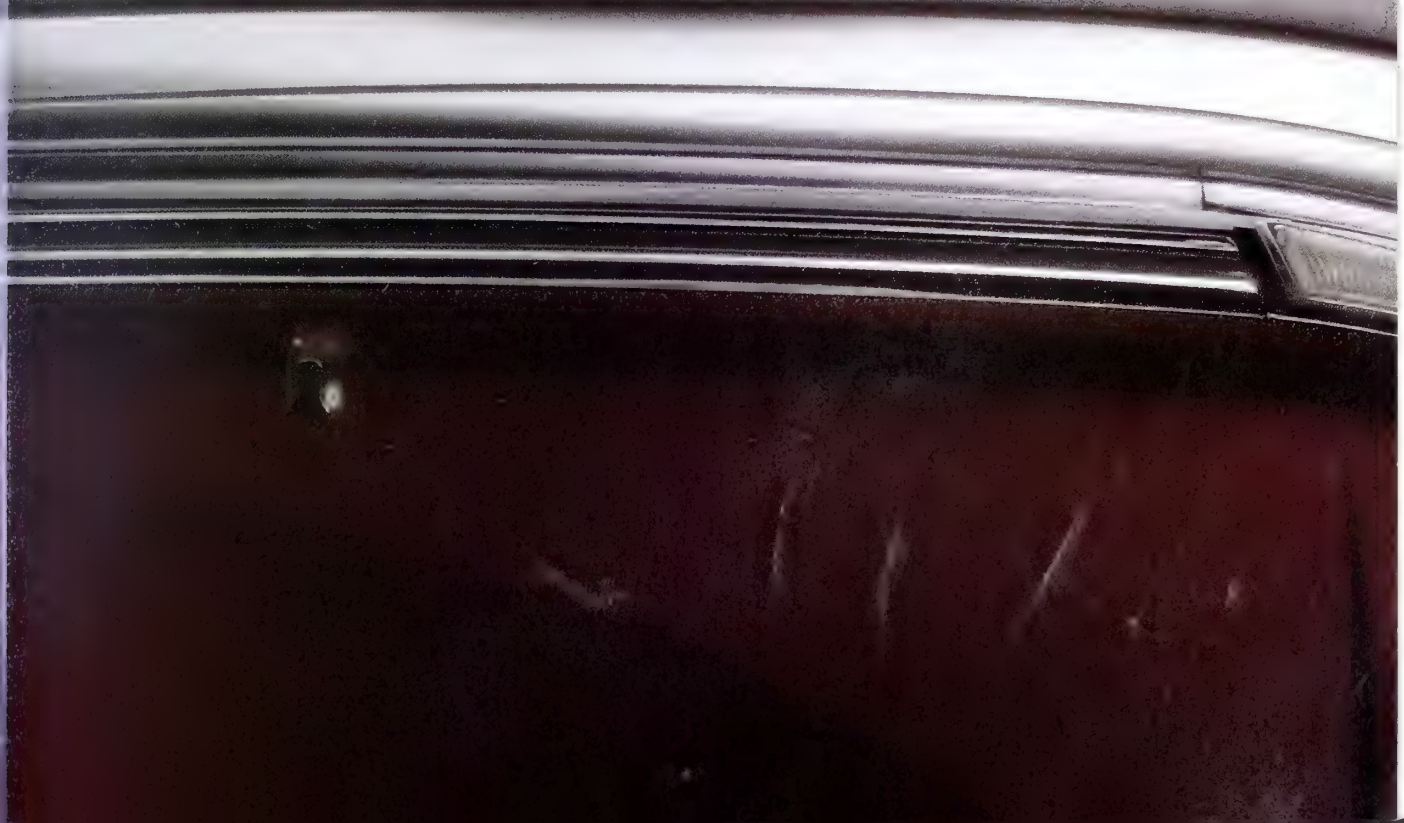
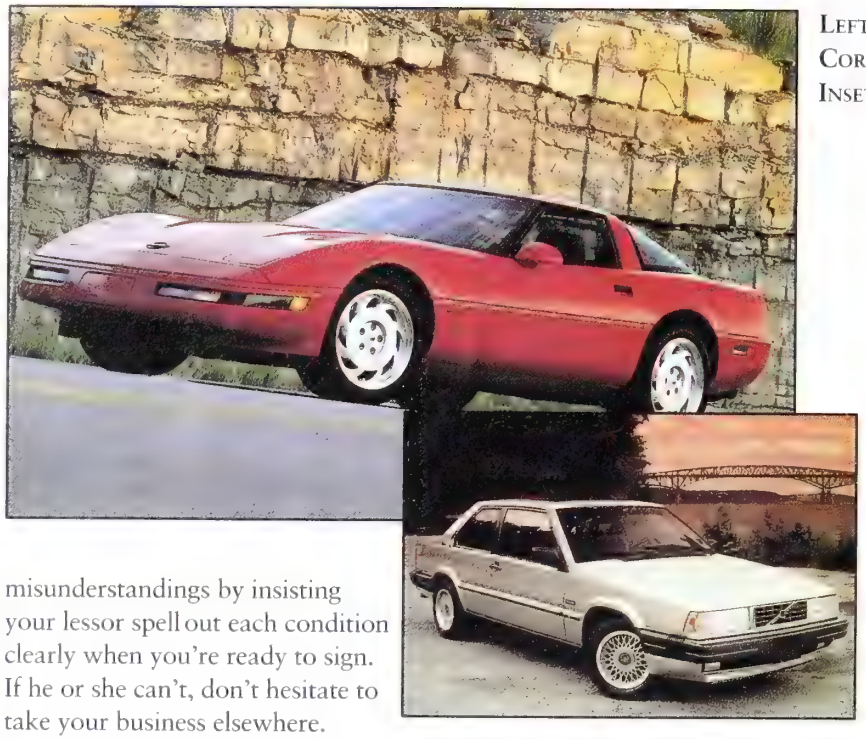
Chevy Astro. The only compact van available with all-wheel drive and standard 4-wheel ABS.*

THE *Heartbeat* OF AMERICA IS WINNING™
TODAY'S FLEET COMPANY IS CHEVROLET.

To The Company Was Substantial.



A Field Guide to Automotive Leasing



LEFT: 1991 CHEVROLET CORVETTE COUPE
INSET: 1991 VOLVO COUPE

misunderstandings by insisting your lessor spell out each condition clearly when you're ready to sign. If he or she can't, don't hesitate to take your business elsewhere.

How do you know your're dealing with a reputable leasing firm? The "captive" finance companies associated with auto manufacturers are a safe bet, as are large banks. But don't rule out the small independents: *Since they're not wedded to any particular brand, they may be better at helping you pick out a car that will hold its value better...and thus cost less to lease.*

Whoever you choose, make sure your leasing company is a member of the National Vehicle Leasing Association. NVLA and its more-than-1,000 members have helped form ethical standards for the industry.

Fortunately, leasing firms are making it easier. Today, almost all of them offer only "closed-end" leases that tell you up front exactly what your financial exposure will be. That wasn't true when "open-end" leases were the norm. They left customers wondering until their lease had expired whether they would be socked with last-minute "adjustments" to their bill because their vehicle was worth less than expected.

Smart dealers are just as eager to eliminate any misunderstandings about leasing. It's simply good business. They know lease customers on average are more likely than their retail buyers to return for another car or truck. Lessees also come back more often for routine service; buyers aren't so loyal.

Buying Or Borrowing

You'll still want to know the basics about leasing before you set foot in your first dealership. The most fundamental difference revolves around who owns what. When you buy; you own. When you lease; you borrow.

Suppose you decide to buy a car by financing it over three years. That means you agree to pay for the original value of the vehicle, plus a finance charge. In 36 month you own the car. You also own its residual value...the original value minus depreciation caused by usin your vehicle.

If you lease the same car instead, you pay only for usage (depreciation), plus a finance charge. Your payments are much lower. The tradeoff: *After 36 months both the vehicle and its residual value still belong to the lessor, not to you.*

Does that mean that the lease/buy choice is just a question of deciding whether or not you want to own or rent your next vehicle? Not quite. There are plent of other equally important issues to consider.

Like how you feel about the very idea of paying to use a vehicl you may never own. For America ingrained with the ownership ethi "renting" personal transportation may seem distasteful.

"It's universal to want to own everything," acknowledges F. Joseph McPartlin, director of retail leasing for General Motors Acceptance Corp. (GMAC). "The American public is still getting use to the leasing idea." On the other hand, says McPartlin, consumers are also more interested than ever in services. "They want a trouble-free experience," he notes. Leasing can give it to them.

The Chrysler luxury lease. Combining the advantages of ownership, rental and outright larceny.

Introducing Chrysler's Gold Key luxury leases. All the advantages you expect of a lease agreement at criminally low monthly costs.*

Fifth Ave.	Salon	LeBaron
$294	$260	$247

Especially when you consider that these affordable payment plans are available with three of our most luxurious cars. Chrysler's New Yorker Fifth Avenue. Our New Yorker Salon. And the LeBaron Sedan.

Each engineered for the smooth quiet ride you expect. And each packed with standard amenities. Power steering, power brakes, air-conditioning, 4-speed automatic transmission, dual remote mirrors and multi-speaker stereo.

Also standard is a driver side air bag. Something many other manufacturers only include on their most expensive models, or as an extra cost option.

Engineering. Luxury. And the advantages of Chrysler's affordable Gold Key lease. Visit your Chrysler-Plymouth dealer today, for a plan tailored to fit your needs. You'll be amazed at what you can get away with.

7/70

To buy or lease, please call
1-800-4A-CHRYSLER
Buckle up for safety.

Chrysler

Advantage: Chrysler.

*Base sticker example, lease prices vary. 48 mos. total: Fifth Avenue $14,097/Salon $12,483/LeBaron $11,851 incl. destination fee. Tax/title/insur. extra. Upfront: 20% down. Plus security deposit and 1st mos. payment. Option to buy at lease end at preset price. Pay for damage plus 8¢/mi. over 15,000 mi. per year.

A Field Guide to Automotive Leasing

1991 Eagle Talon TSI

1991 Jeep Cherokee Limited

Avoiding The Hassles Of Ownership

Ask most car or truck owners what worries them about the ownership experience and chances are they'll list these concerns:

- *Wishing they could get more for their money when they buy*
- *Knowing they'll have to delay their next vehicle purchase until they can accumulate a sizeable downpayment*
- *Fretting about what they'll get back when they trade in their present vehicle*
- *Wondering how much maintenance will cost a few years down the road*

Leasing offers attractive solutions to all these problems. Are they enough to sway your decision? Let's examine the answers in detail.

One of the traditional advantages to buying is the ability to deduct the interest you pay on your car or truck loan when you figure your federal income taxes. No longer. Changes in the tax laws have all but obliterated that deduction. This year you're allowed to write off only 10% of your interest payments. Starting in 1991, the allowance drops to zero.

The tax law now makes the argument *in favor* of leasing stronger than ever...at least when you use your car for business. That's because you can simply deduct a percentage of each lease payment equal to the percentage you use the car for business. For a car you own, the allowable deduction is a percentage of a relatively low depreciation allowance that doesn't change no matter how much your car cost new.

Don't plan on using your car for business? Leasing will still cost you significantly less per month than buying. The difference ranges roughly between 15% and 40%, depending on the price of the car and the terms of the agreement. When you have other significant expenses to consider, leasing offers an obvious way to limit your payout for personal transportation.

Or, turn that payment gap around and use it to leverage your purchasing power. Suppose your budget permits $400 monthly payments. If you buy over four years, you can afford a vehicle worth about $17,000. Apply the same $400-per-month to a lease, and you'll be tooling around in a car or pickup worth more like $21,000.

To put it yet another way, your monthly payments would be about the same whether you lease over three years or buy over five. If moving into new wheels frequently is a big consideration, leasing lets you do it without stretching your monthly limit.

What About The Risks Of Leasing?

Fine, but what happens if you change your mind and want to bail out of a lease early? You'll face penalty charges. Be absolutely certain you understand what they are and how they work. It's not unusual for a lease agreement to include an early termination fee and charges to cover a portion of the remaining payments.

You'll also want to ask what would happen if you moved out of town or to another state. How would you turn in your car when its lease expires? Most leasing firms can accommodate such a problem through a local dealer near your new home, but you're wise to check first.

Insurance is another subject to consider carefully. You're normally responsible for carrying enough insurance to pay the market value of your vehicle if it's stolen or wrecked. But you're still liable for all those remaining lease payments. Be certain you arrange to cover the difference with so-called gap insurance.

What about downpayments?

No Down Payment. No Maintenance Charges. No Problem.

The Audi 3-Year Test Drive.

Now you can experience a car with the incomparable style, comfort and German-engineered ride of an Audi 100, without putting any money down* and without ever having to worry about things like tune-ups. Or oil changes. Or brake pads. Even wiper blades.

Because it's all covered with the same Audi Advantage protection you'd get if you'd purchased the car. All you have to do is put in the gas and go.

All regular scheduled maintenance and normal wear items are completely taken care of for three years or 50,000 miles — unlike other leases that offer less coverage and only allow you 45,000 miles.

And you'll drive with the confidence of knowing that the Audi 100 recorded the best driver protection scores of any car in the history of the NHTSA 35 mph barrier crash test program when measured against the government's Head Injury Criterion.

It's why the Audi 3-Year Test Drive makes so much sense. And why the only problem we expect you'll ever have leasing an Audi...will be selecting the color. For more information call 1-800-FOR-AUDI.

Audi

Offered by VW Credit, Inc. through participating dealers. Lease based on MSRP including destination charge. Dealer contributions to this offer may affect final negotiated transaction. Thirty-six month closed-end lease. No down payment, no purchase option. First month's lease payment of $499 plus refundable security deposit equal to one month's payment required at lease inception. Tax, license, dealer prep., options extra. 10¢ per mile over 50,000 miles. Lessee is responsible for excessive wear and use. Total of monthly payments for Audi 100 shown is $17,964. See us for details.

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Executive suites.

Spacious rooms, lavishly yet tastefully furnished. Each with an impressive view and quick access to your business district.

That's Oldsmobile Ninety Eight Regency™ Elite, Toronado Troféo and Eighty Eight™ Royale Brougham for 1991. A trio of executive automobiles that say a lot more about your business than a business card.

Each states, in no uncertain terms, that your company is highly successful, has a keen eye for quality, demands reliability (Oldsmobile backs its vehicles with all the benefits of the *Oldsmobile Fleet Edge*), and obviously makes business decisions that are fiscally sound.

That's a sizable accomplishment, but then, these are rather ambitious executive cars.

The all-new Ninety Eight, for example, is larger than before, with greater interior room and more trunk capacity. And like Toronado, it features four-wheel independer suspension, an electronic anti-lock braking system, a driver-si air bag, plus the added performance of a 3800 V6 engine wi new tuned port injection.

The Eighty Eight's credentia are equally impressive with ai conditioning, power disc brake and power steering with the convenience of Tilt-Wheel™ Steering. All standard. ABS and driver-side air bag are available. With four-wheel independent suspension and 3800 V6 with sequential port fuel injection, it makes its moves with the authority of a ranking

Your executive suites for 1991 are ready. A well within your budget.

For more specifics, contact your Olds area fleet manager, or C. E. (Chuck) Dietrick, Direct National Fleet Sales, Oldsmobile Division, Lansing, Michigan 48921, (517) 377-5680.

The New Generation of Oldsmobile™

Let's get it together. . .buckle up.
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A Field Guide to Automotive Leasing

1991 Cadillac STS

Many leases require nothing more than a refundable security deposit and/or one month's payment, along with license and registration fees. That's convenient for you, but it also means you have invested virtually no equity in the deal. So, you'll need a better-than-average credit rating to offset the bigger risk you represent to the financing company. This year almost all leasing firms have begun to push for down payments equal to 10% to 20% of the vehicle's value. That lowers monthly payments by, in effect, forcing you to "pre-pay" part of the usage you extract by driving the vehicle. It also opens up the leasing option to consumers with less impressive credit records.

The Leasing "Buy" Option

Suppose you love your lease car so much you wish you could buy it. In many cases, you can. If you think that possibility might arise, just say you want a "buy-option" incorporated in your lease. It spells out the selling price of your used car, including any additional fees you may have to pay.

1991 Accord LX Coupe

Remember, a buy option is just that: *an option.* You can still decide not to buy when the lease is over. That's a key difference between a closed-end and open-end lease. "In an open-end lease, you have an obligation with respect to the value of the car at the end," explains Michael T. Duke, chief executive and president of Volvo Finance North America, Inc. "In an closed-end, you just hand over the keys and walk away."

Like other buy-options, the one from Volvo Finance sets a resale price when you sign. What's unusual is that Volvo will let you buy the car for less than that amount if, at the end of the lease, the vehicle's wholesale price as listed in the National Automobile Dealers Association's used car guide is lower. "We're willing to take the risk," says Duke. Besides, he points out, the arrangement saves Volvo Finance the cost of refurbishing and reselling the used car.

Sure you won't want to keep your leased vehicle? The buy-option still makes sense. Assume, for example, you lease a car initially worth $20,000. The lessor calculates it will be worth $12,000 after three years and says so in the lease agreement. But, at the end of the lease, changes in the marketplace have made your car worth $14,000. The agreement lets you sell it for that and keep the extra $2,000. It also protects you if your car's value turns out to be less than the expected $12,000: *the lessor must eat the difference at no cost to you.*

It's The Lease We Can Do For You.

$299* a month.

Jeep Cherokee Laredo.

Now, through December 31, 1990, you can lease a Jeep Cherokee Laredo with a 4.0 litre 190 horsepower engine for the special rate of $299 a month. Price is based on MSRP of Jeep Cherokee Laredo four-door four-wheel drive model including automatic transmission, air conditioning, and destination charges. Excludes title, taxes, and other options. Monthly payment shown is for qualified buyers through Chrysler Credit Corporation. Offer available on select 1991 vehicles. Chrysler will provide $700 cash to the consumer for use toward down payment. Payment depends on actual dealer price and equipment level of vehicle in stock. Option to purchase at lease end must be negotiated with dealer at lease inception. There is a penalty for excessive wear and tear. See participating dealer for details. For more information, call 1-800-JEEP-EAGLE.

There's Only One Jeep...
Advantage: Chrysler Jeep

Advantage Gold Key Lease Details Term 48 months, 1st Payment $299, Down Payment $1,700, Refundable Security Deposit $325, Advantage Gold Key Lease Cash Provided $700, Total Cash in Advance $3,024, Total Allowable Miles 60,000, Excess Miles (over 60,000) .08/mile, Total Payments $14,352.

Jeep is a registered trademark of Chrysler Corporation.

Buckle up for safety.

A Field Guide to Automotive Leasing

LEFT: BMW 325I CONVERTABLE
LOWER LEFT: 1991 CHRYSLER LE BARON SEDAN

In these uncertain economic times, that "no-fault" feature may be leasing's biggest attraction. Remember the last oil crisis, when the value of big cars suddenly plummeted? Owners were stuck with aging cars whose slumping resale value made it tougher than ever to move into a new vehicle.

Lease customers with the buy-option don't have to worry. The peace of mind they get in knowing exactly what their financial exposure will be on their new car or truck is worth plenty. For them, avoiding the haggling that comes when it's time to trade in an old car is reward enough.

Maintenance Coverage

There are other advantages as well. Maintenance can be a breeze, if only because you'll turn in your vehicle on a two- or three-year lease before major repairs become necessary. Still worried about repairs? Consider a "full maintenance" lease, which covers virtually everything except gasoline and insurance.

Audi's "three-year-test-drive" lease is a good example of the full maintenance lease. It covers all scheduled maintenance for three years and 50,000 miles. You won't pay for oil changes, tune-ups or new windshield wipers. Even washer fluid fill-ups are covered.

Audi is offering the full-coverage lease on all its 1991 models. The cost? Joseph H. Tate, Audi's general sales manager, says a typically equipped Audi 100 that retails for $28,975 leases for $499 per month. He says leases now account for roughly 40% of all Audi deliveries...about twice the level before the "test drive" program began in April 1989.

Most leases do expect you to maintain (and insure) your vehicle, though, just as you would if you were buying it instead. After all, you're only "borrowing" it from the lessor...its real owner...for a few years. If you turn it in with bald tires or major collision damage, you'll be charged by the lessor for repairs necessary to restore it to saleable condition.

There's one more wrinkle in the leasing game. Some financial firms such as GMAC offer leases on *used* cars. The deals cover models that are generally less than one year old, and have low accumulated miles. Except for that, the agreements are like those for new cars.

Who Should & Shouldn't Lea

Is leasing beginning to sound intriguing? It probably does if you have above-average income and a under 40 years old. According to leasing firms, relatively young and more affluent buyers are the most likely to be swayed by the appeal leasing. So are luxury car buyers, market segment where more than one in four vehicles is leased today. Leasing also appeals best to multiple-car households.

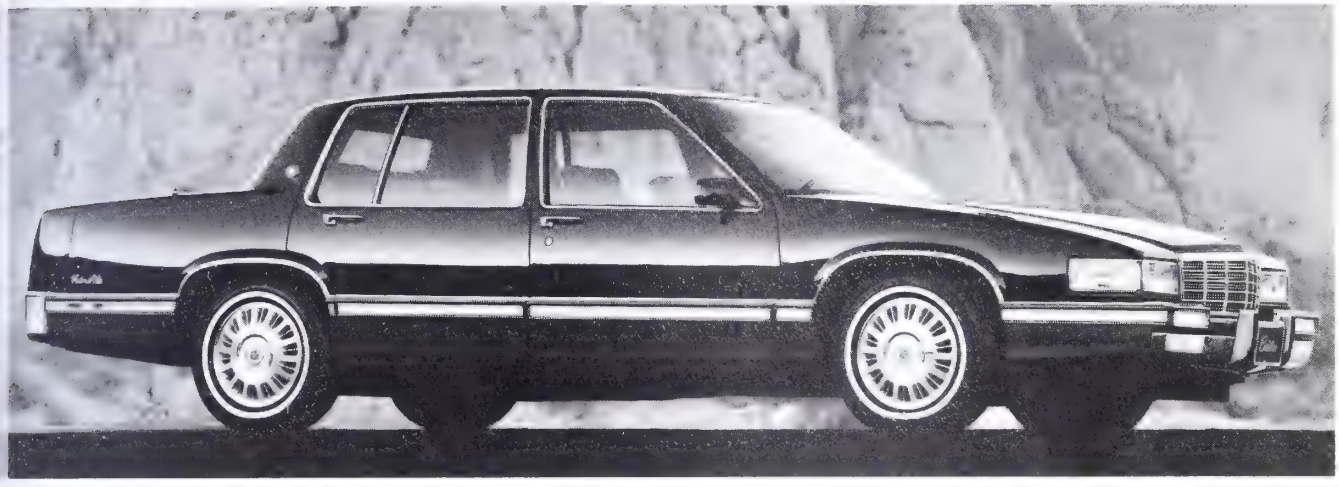
Naturally, leasing isn't perfec for everyone. According to the experts, the poorest candidates for leasing include:

- *First time shoppers or consum with poor credit ratings*
- *People who drive more than 20,000 miles-per-year*
- *Consumers determined to kee the same vehicle more than five ye*
- *Drivers who want to customi their wheels with fancy paint jobs and unusual options*

Even then there are exceptions. Consider mileage. A lease establish how many miles you can drive ov the term of the contract. Most cor tracts limit you to a yearly averag of 12,000 to 15,000 miles. Go ov and you could pay a penalty.

Don't give up hope yet, however. If you anticipate greater than-normal driving, many lessors will factor that into their calculati

C A D I L L A C S T Y L E



1991 SEDAN DE VILLE–backed by a no-deductible 4-year/50,000-mile bumper-to-bumper warranty† and 24-hour Cadillac Roadside Service.

Your tax accountant can show you how leasing your Cadillac for business can be a brilliant deduction.

With special SMARTLEASE℠ terms, a 1991 Cadillac is an even more brilliant deduction.

A CADILLAC OFFER OF QUALITY

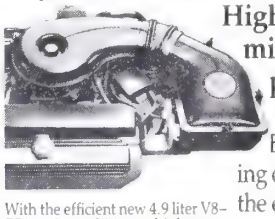
For a limited time, you can lock in all the value of driving a Cadillac on very special terms. And changing tax laws can make leasing a new Cadillac an even more brilliant deduction.

Whatever contract length you specify, special SMARTLEASE values are available such as these shown for the 1991 Sedan de Ville*.

CUSTOMER DOWN PAYMENT	-0-	5%	10%
24-Month Lease As Low As…	$499[1]	$429[2]	$361[3]

The Cadillac SMARTLEASE: unmatched convenience, unsurpassed peace of mind. Consider all the advantages of leasing: capital preservation, lower monthly payments, potential tax savings. But the smart money knows that leasing is even smarter when you SMARTLEASE.

In addition to competitive rates, your Cadillac dealer expedites all the details right in the showroom. And rest assured: your lease is backed by Cadillac. A company that is totally committed to your complete satisfaction with your automobile and your SMARTLEASE.



With the efficient new 4.9 liter V8– **EPA estimated 26 mpg highway** –a new Cadillac is as responsible to lease as it is responsive to drive.

Highest highway mileage of any V8-powered luxury automobiles. Behind the new styling of the 1991 De Ville is the efficiency of a new, more powerful 4.9 liter V8 with a higher EPA highway mileage estimate than any V8-powered Mercedes, Lexus, Lincoln or Infiniti. The De Ville is equally committed to the efficient use of space, with the highest interior volume of any front-drive sedan. And like all Cadillacs, anti-lock brakes are standard.

Nobody is putting quality on the road like Cadillac. Winner of the U.S. Department of Commerce 1990 Malcolm Baldrige Award.

Malcolm Baldrige National Quality Award Winner

THE ONLY WAY TO TRAVEL IS CADILLAC STYLE™

Please call **1-800-333-4CAD** for product literature and the location of your nearest Cadillac dealer.

*You must take retail delivery out of dealer stock. Other fees may be applicable at lease signing including tax, license, title fees, insurance and up to a $310 lease acquisition fee reimbursed to dealer. Examples assume a dealer funded capitalized cost reduction of $3,525. Mileage charge of 10 cents per mile over 30,000. Payments may be slightly higher in Alabama, Arkansas, Oklahoma and Texas. Lessee pays for excessive wear and use. GMAC must approve lease. Examples based on Sedan de Ville: $32,191 MSRP, includes destination charge. Option to purchase at lease end for $20,184. Purchase option price is fixed at lease signing and varies by vehicle model, equipment level, usage and length of lease. See your participating dealer for qualification details. [1]Total of monthly payments is $11,976. First month's lease payment of $499, plus $500 refundable security deposit for a total of $999 due at lease signing, plus applicable extras. [2]Total of monthly payments is $10,296. First month's lease payment of $429, plus $450 refundable security deposit, plus $1,610 customer capitalized cost reduction for a total of $2,489 due at lease signing, plus applicable extras. [3]Total of monthly payments is $8,664. First month's lease payment of $361 plus $375 refundable security deposit, plus $3,219 customer capitalized cost reduction for a total of $3,955 due at lease signing, plus applicable extras. †See your dealer for terms of this limited warranty.

GM

let's get it together buckle up
1990 GM Corp. All Rights Reserved
EDAN DE VILLE.

1991 Chevrolet Caprice Classic

of your lease payments. You'll end up paying a few dollars more every month, but the total probably won't be as much as you'd incur with mileage penalty fees on a conventional lease.

By the way, don't think you can avoid the mileage issue if you buy instead of lease. Those extra miles will still come back to haunt you at trade-in time.

The "Upside Down" Issue

Most motorists, of course, would prefer to move into a new set of wheels much more frequently. According to the Big 3 auto makers, consumers still prefer to trade every three years. Yet the average term of today's new car loans runs closer to 4.5 years.

The gap developed as car prices began to soar in the 1980s. Many buyers were unwilling to make sharply higher monthly payments. That gave them two alternatives: *plunk down a heftier downpayment or settle for a longer term in which to pay off their purchase.*

Millions of car buyers have opted for the second choice. That got them into a new car at a price they could afford. But now they're discovering there's no free lunch. Eager to buy a new car, they're now discovering how locked-in they've become to that seemingly never ending loan. Many are alarmed to find their vehicle is depreciating faster than they can pay it off. The condition is what auto makers call "being upside down."

Savvy auto marketers say the problem has become a major source of customer dissatisfaction. They describe the cycle this way: *An owner, they say, wants to buy a new vehicle but can't because he's still paying off a lengthy loan on his old one.* The more frustrated he gets, the more critical he becomes of his old car. It only gets worse as tires, brakes and other maintenance items arise. By the time he can finally buy a new vehicle, the owner will be inclined to jump to another brand.

Financial institutions admit they contributed to the problem by pushing longer financing terms. They did the same thing on leases in the early and mid-1980s. Now they're touting three- and four-year loans again. Most have all but dropped their five-year agreements. And typical leases run only two or three years.

Coaxing customers into shorter ownership commitments makes for more loyal buyers, manufacturers are discovering. Industry statistics show only about one in five new car owners returns to buy another vehicle from the same dealer. Among lease customers, the return rate is closer to 70%, according to Jerry E. Farrell, president of Chrysler Credit Corp. He adds that 76% of first time lease customers lease again.

That's why the financial units of the Big 3 now routinely match the incentives offered to buyers with comparable deals for lessees. How many lease customers do they think they can capture? Nobody is sure. Says Farrell at Chrysler Credit, "we don't know how high is up." One survey of dealerships conducted by *Ward's Auto Dealer* concluded overall leasing could reach 50% by the year 1995. The report points out that retail lease penetration in some markets is already that high. And leasing within the luxury car segment is as high as 80%, depending on brand.

Some auto makers figure close to one third of all retail car and truck deliveries will be leases by the year 2000. More bullish observers say it could be more than twice that high.

Whatever the figure, leasing is bound to continue to grow. And why not? These days, leasing is just too good an option to ignore.

This special advertising section was written by Willian J. Hampton, Director of Editorial Services for The Aegis Group:Publishers in Warren, MI.

With all the awards it's won, you might think we'd be satisfied.

America's award-winning sedan.

The day it first rolled off the assembly line, Ford Taurus began winning awards. From the most respected automotive and consumer magazines to design associations, the praise for Taurus has been almost universal. Now, some might think that all this acclaim would lead us to sit back and rest on our laurels. One drive and it's obvious they couldn't be more wrong.

Continuous improvement.

We've never stopped trying to make Taurus even better. In fact, over 400 refinements have been made since it was introduced. Ranging from major changes like entirely new engine choices to thoughtful touches like an easily-accessed remote trunk release.

Important safety features.

Taurus is equipped with 22 standard safety features including a driver's side air bag supplemental restraint system to be used with your safety belt and 3-point rear seat belts. Plus the available anti-lock braking system with four-wheel disc brakes provides even more security for you and your family.

At Ford, we're proud of our philosophy of continuous improvement. This attitude, and the results it produces, have made Taurus an award-winning sedan you will find very satisfying.

Ford. The best-built American cars... ten years running.

This is based on an average of consumer-reported problems in a series of surveys of all Ford and competitive '81-'90 models designed and built in North America. At Ford, "Quality is Job 1."

Ford Taurus

Buckle up–together we can save lives.

Have you driven a Ford...lately?

Ford

LEASED VOLVOS ARE ALSO EQUIPPED TO ABSORB IMPACT HERE.

Driving a Volvo has always been an enriching experience. And leasing one can be equally rewarding. Because unlike traditional financing, no down payment is required and monthly payments are substantially lower. And when you lease through your authorized Volvo dealer, you're provided the security of dealing with Volvo Finance North America, Inc.

You're also provided the security of driving a car that helps keep you safe as well as financially sound. With features like "crumple" zones, which help absorb impact front and rear, and a driver's-side Supplemental Restraint System. Many Volvos also come equipped with highly sophisticated anti-lock brakes.

Considering all the features Volvo has to offer, it's no wonder many people become attached to their Volvo by the time the lease ends. That's why we offer you the option to buy your leased Volvo at its NADA wholesale market value when the lease is over.

So ask your dealer about leasing a Volvo. You'll then discover why some of our most satisfied customers don't own a Volvo.

VOLVO Finance

THE VOLVO 740 GL

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VEMBER 26, 1990

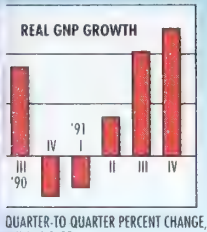
BY JAMES C. COOPER AND KATHLEEN MADIGAN

OR A MILD RECESSION, T'S A BITTER BEGINNING

This recession is supposed to be quick and painless. Two quarters of decline in real gross national product of no more than 1% each, say the economists. ybe they should take another look. The way the economic data for October are shaping up, the mild recession isn't starting out so mild. The numbers are signal: that the fourth-quarter decline in real GNP will be ch steeper than expected.

The November consensus of 52 top forecasters, compiled by *Blue Chip Economic Indicators*, calls for real P to dip 0.8% this quarter and 0.6% in the first quarter 1991, with a recovery beginning in the second quarter art). The unemployment rate will rise about half a rcentage point from its current level of 5.7%, they say. at would be one of the shortest recessions in the stwar period and the shallowest by far.

THE ECONOMISTS' NSENSUS FORECAST



QUARTER-TO QUARTER PERCENT CHANGE, ANNUAL RATE
DATA: *BLUE CHIP ECONOMIC INDICATORS*

Now for the cold facts: Industrial production started the fourth quarter with a sharp drop that put it, at an annual rate, 3% below the third-quarter level. Inflation-adjusted retail sales were down by an estimated 3%. And hours worked by employees in nonfarm businesses, a good indicator of the economy's overall output, began the quarter down by 5%. If the mbers in the final two months don't improve, real GNP on track to post a decline of 3% to 4%.

HE FED HOULD ASE ARDER

That would mean that the Federal Reserve Board is far behind in its efforts to turn the economy around with lower interest rates. The Fed seems likely to trim federal funds rate by another 0.25% after its Nov. 13 icy meeting. But if the economy is deteriorating as idly as the October numbers suggest, more aggressive easing of monetary policy will be warranted.

In fact, this recession might require the Fed to pump t more bucks to get the same bang as in past downns. Although the Fed is making funds cheaper to nks, institutions are hesitant to cut their prime and ier lending rates, since banks need to shore up sagg profits and meet higher capital requirements. This ans that consumer-loan rates, many of which are tied the prime, might be slow to come down in the wake of Fed's baby-step approach to easing.

A few senior Fed officials are adamant that too much se will allow the pass-through effects of higher oil prices to fuel overall inflation. However, the October report on producer prices shows no hint that goods prices are accelerating generally. And they aren't likely to. Broad weakness in demand, especially by consumers, is blunting efforts to pass along higher energy costs.

SHOPPERS BROWSED BUT DIDN'T BUY

This is a consumer-led recession in the classic sense. Progressive weakness in labor markets is depressing income growth. Households are already digging deeply into their savings, and higher energy costs are a further drain on purchasing power generally.

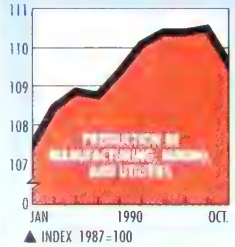
Retail sales barely rose in October. They were up 0.1%, but excluding price-inflated receipts at gas stations, sales fell 0.1%. Since July, gas stations have accounted for nearly all of the increase in retail sales.

A small rise in car sales also helped the October total, but that was attributable more to seasonal factors and higher prices than to any real strength. Unit sales of domestically made autos fell from an annual rate of 7.6 million in September to 6.9 million in October. And sales in early November were only 6.5 million.

The retail picture is especially dark at general merchandise stores, where sales fell 0.5% in October on top of a 1.1% decline in September. Clothing stores also posted a sharp drop for the second consecutive month.

The current sluggishness in retailing could mean an especially gloomy holiday season for profits but good news for bargain-hunting shoppers. With retail inventories building, stores will have to discount heavily to move their merchandise.

INDUSTRIAL OUTPUT IS FALLING OFF



▲ INDEX 1987=100
DATA: FEDERAL RESERVE

In that kind of environment, industrial companies aren't even thinking about raising prices. They are too busy cutting back their production schedules. Output in manufacturing, mining, and utilities fell 0.8% in October, after a slim 0.2% gain in September (chart). Except for a 1% decline in January, that was the largest drop in 4½ years.

But unlike January, when unusually large cuts in auto production depressed output temporarily, the October decline was widespread. Car output did account for one-fourth of the month's drop, but even excluding autos, production of both consumer goods and business equipment posted sizable losses. Output of construction supplies fell sharply for the third consecutive month.

In the past, recessions have usually begun about the

ERIC HOFFMANN/BW

time when industrial production peaks. That high point occurred in September. With the 1990-91 recession barely under way, such steep cutbacks strongly suggest that the economy is falling much faster than expected.

Production in the manufacturing sector also dropped 0.8% in October, after no growth in both August and September. Further declines seem certain. The factory workweek, a leading indicator of production, took its largest one-month plunge in October in 5½ years. Although the U. S. exports a record 20% of its factory production, the drag from domestic markets now appears to be overwhelming the support from exports.

Detroit will be a major source of weakness in overall output this quarter. After making cars at an annual rate of 7.5 million in September, production fell to 6.8 million in October. And based on Detroit's projections, output will fall to about 6.2 million in November and to only about 6 million in December. Those cuts will have large secondary impacts on Detroit's supplier industries.

In addition to the consumer-related cutbacks in output, cuts in capital spending are causing a drain on production of capital goods. The October weakness in output of industrial equipment was widespread, and information-processing machinery fell after posting robust gains during the third quarter.

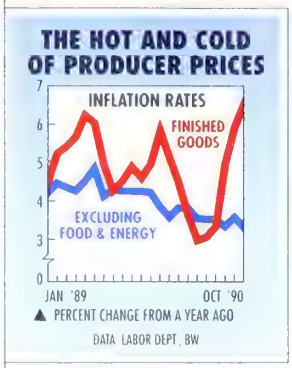
OPERATING RATES TAKE A DIVE

Let's face it, businesses don't have much incentive to commit themselves to big capital projects right now. In particular, it will be increasingly difficult to justify adding new capacity when utilization rates for existing capacity are falling.

Operating rates in all industry plunged from 83.5% in September to 82.6% in October, the lowest level in nearly three years. Manufacturing used 81.7% of its production capacity last month, also down sharply from September. The declines in operating rates were widespread.

Capacity use for all industries hit a peak for this expansion in April, 1989, at 85%. With capacity becomi increasingly idle, it's no wonder that companies are fi ing it difficult to pass along their higher energy cos Stronger currencies abroad make it easier for U. S. e porters to pass along their higher energy bills, but tho selling to U. S. customers face more resistance.

Producer prices tell the story. Although prices of f ished goods rose an alarming 1.1% in October, after ev larger increases in the previous two months, prices e cluding the volatile energy and food sectors didn't rise all. This so-called core rate of wholesale inflation sho that there has been, as yet, no impact from the seco ary effects of higher energy prices.



The yearly pace of inflation finished-goods prices accele ated to 6.5% in October, fro only 3.4% in July—just befo the Iraqi invasion of Kuwa But the core rate continued decline (chart).

There also seems to be sca inflationary pressure on goo prices further back in the pip line. During the past yea prices of intermediate goo rose only 1.5%, excluding food and energy. And prices nonfood, nonenergy crude goods are barely up at all.

True, inflation pressures in the service sector are mo intense than they are in the goods-producing secto However, the impact of the economy's weakness is a ready being felt in the labor markets for services. Th means more gains in the overall inflation fight are the way.

The Fed now has to choose. It can take those gai and begin the work of righting the economy. Or it ca keep up the inflation fight. But with the recession off such an ominous start, trying to drive inflation into th ground might also bury the economy.

THE WEEK AHEAD

HOUSING STARTS

Tuesday, Nov. 20, 8:30 a.m.

Homebuilding continued to topple, with new starts probably falling to an annual rate of about 1.09 million in October, according to the consensus forecast of economists surveyed by MMS International, a division of McGraw-Hill. The drop is suggested by the decline in construction jobs and the shorter workweek in the building industry in October. Starts stood at just 1.14 million in September, and 1990 is shaping up to be the worst year for housing since the 1981-82 recession. Demographic shifts, a stagnant market for existing homes, and relatively high mortgage rates have combined to batter the homebuilding industry. With the economy sliding into recession, housing is unlikely to turn around until well into 1991.

INITIAL UNEMPLOYMENT CLAIMS

Wednesday, Nov. 21, 8:30 a.m.

New filings for state unemployment insurance benefits probably ran at an annual rate of 440,000 for the week ended Nov. 10, about the same high level that has prevailed since early October. The large number of new claims suggests that the government's monthly unemployment rate is understating the true level of joblessness in the U. S. In the past, jobless claims at that level usually have been associated with an unemployment rate of 7%. The reported unemployment rate stood at only 5.7% in October.

FEDERAL BUDGET

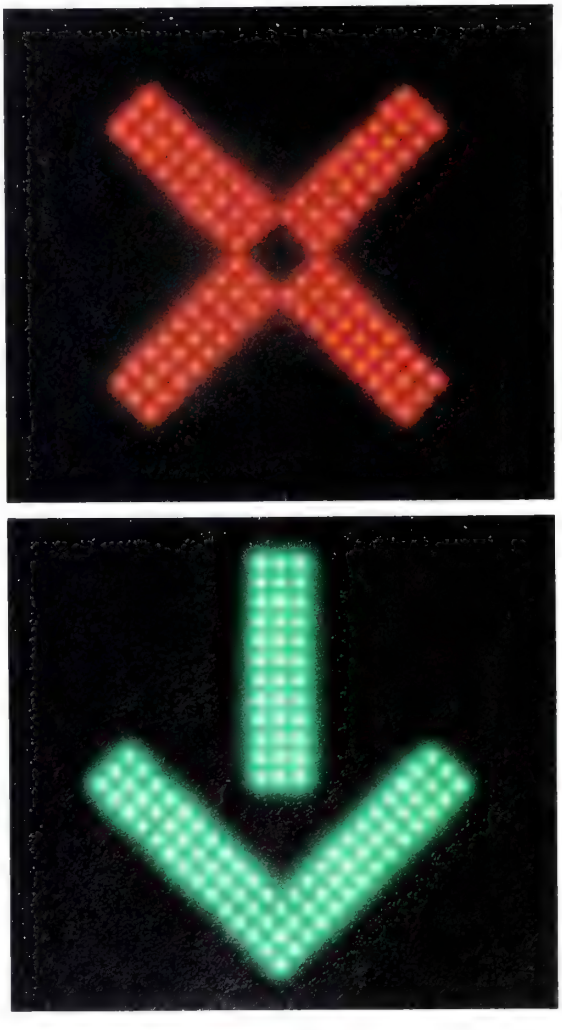
Friday, Nov. 23, 2 p.m.

The 1991 federal budget probably g off to a bad start in October. The MM consensus expects the Treasury Dept. report a budget deficit of about $37 b lion last month, a sharp increase ov the $26.1 billion shortfall posted in Oct ber, 1989. Last year, the government ra up a $220.4 billion deficit, close to th $221.2 billion record of 1986. Increase outlays for the thrift bailout and for O eration Desert Shield are draining th government's coffers. Meanwhile, th weakening economy is holding down ta receipts. In particular, corporate incom taxes, which fell 9.5% in fiscal 1990, w continue to shrink in 1991.

Light is the controlling force.
A corn sprout grows from this kernel of truth.

he corn sprout conducts unlight down to its root p. From there, light con-ols the young plant's rowth.

Up to twelve different messages can be programmed in a changeable traffic signal. Schott, a pioneer in special glass, developed complete optical systems to enable traffic to be optimally controlled under all conditions.



No two ways about it – we must admit that our light conducting glass fibers, known as optical fibers, aren't exactly the first to light the way. Take corn, for example. The tender shoot of a germinated kernel conducts daylight deep down to the very tip of its root. That's the controlling force behind the growth of a corn sprout.

_____ Optical fibers are ideal for controlling and conducting light. Like in the middle of traffic. Bundles of optical fibers conduct light from halogen lamps to the front plate of traffic signals. And the free ends of optical fibers are where traffic messages are generated. This way, up to twelve messages can be transmitted by a single traffic signal. And they can be clearly seen from a distance – even in bad weather.

_____ Optical fibers for traffic control, available from Schott America, are just one "shining" example of their application. Highly transparent optical fibers also control switching operations in power plants or transmit data between computers. You'll encounter our fiber optics in medicine, analytical instrumentation and in measurement and control technology. We've also discovered a new application for laser conducting systems.

_____ Schott worldwide: 50,000 products, 50 production facilities, represented in more than 100 countries, with over $ 1 billion in sales.

_____ Schott in North America: 11 companies employing more than 1,800 people.

_____ Would you like to know more about our special glass? Write to: Schott Corporation, Department B10, 3 Odell Plaza, Yonkers, NY 10701.

SCHOTT

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Nobody knows more about glass.

ENGINE OF PROFITS: AT GE, EXPORTS WERE UP 18% IN THE FIRST HALF, TO $2.9 BILLION, WITH NEW ORDERS TOPPING $4 BILLION

THINK GLOBALLY, SURVIVE LOCALLY

EXPORTS ARE KEEPING MANY U.S. COMPANIES PROFITABLE

The U. S. economic picture seems to be growing darker by the minute, but a few glimmers of hope shine through.

Even though New England's economy may be a basket case, Louis J. Auletta Sr. isn't too worried. His Farmington (Conn.) company, Bauer Aerospace Inc., is still hiring as it heads toward $10 million in sales of aircraft-engine test equipment. The reason: an export boom that sends 60% of Bauer's sales to Europe and the Pacific Basin.

Warroad, Minn., is "about as far from the oceans as you can get," says Ley W. Soltis, an international sales rep for Marvin Windows. But Marvin, a privately held maker of high-quality windows, is slowly working its way into an unlikely market—the Japanese construction business, which now accounts for 3% of company sales. Marvin has even opened a Japanese-language showroom near Seattle-Tacoma International Airport, the entry point for many Japanese visitors.

Selling abroad is old hat to General Electric Co., the nation's second-largest exporter. But with the U. S. economy slowing, foreign markets are even more vital. Exports were up 18%, to $2.9 billion, in the first half of the year, with new orders for power plants, appliances, and medical equipment topping $4 billion. "In th kind of economy we have, that's prett nice," says GE chief economist Walter F Joelson.

Heartening tales such as these hav convinced many economists that stron exports will ease th worst sting of the r cession (chart). It probably going too f to say that the U. S. becoming an export-le economy. But afte three years of boomin sales abroad, optimis see continuing stron foreign demand pickin up the slack for expor minded U. S. manufa

rers. The dollar's drop to record lows hart) will cut prices of U. S. goods, aranteeing rising sales and protected arket share for at least another year. S. manufactured exports are expected grow 8% this year, to $310 billion. nd to reach overseas markets, Ameri- n manufacturers are raising productiv- and sharpening their marketing ills.

For the next year, "exports will power e U. S. economy—there 'n't nothing else going ," says Lloyd Atkinson, ief economist for the nk of Montreal. The Na- nal Association of Manu- cturers thinks the big- st winners will be akers of capital goods, craft, computers, and ientific instruments, ng with manufacturers such commodities as emicals and paper.

LIFELINE. Exports aren't oof against a slump in e U. S., though. "The no- n that exports are a life- e against world reces- n is probably not true," ys John Endean, vice- esident of the American siness Conference. Indeed, the export pic- re isn't quite as glowing economists had thought was just a few months o. Growth is slowing in st industrial nations. nada, the largest U. S. ding partner, is in a re- ssion, and Japan and ny European countries e responding to the oil- ce shock by lowering ir growth forecasts. As result, foreign demand r U. S. manufactured ods will fall short of pectations.

Problems at home may also keep nerican companies from exploiting for- n opportunities as thoroughly as they ld. Government export-promotion ef- ts are waning, and American banks ve fled from export lending. "The piv- l question is whether the bulk of nerican industry is agile enough to ft from domestic markets to an inter- tional focus," says C. Fred Bergsten, ector of Washington's Institute for ernational Economics.

Further complicating the picture is the adlock among the 100 nations negoti- ng a new trade agreement under the spices of the General Agreement on Tariffs & Trade. European intransigence over cutting agricultural subsidies "has made the task of reaching a successful conclusion almost impossible," warns U. S. Trade Representative Carla A. Hills. Failed negotiations could result in a new wave of protectionism and shrinking worldwide trade.

Overseas economies may be slowing, but their growth is likely to outstrip that of the U. S. In Latin America, which buys 13% of U. S. goods sold abroad, the picture is mixed. Economic reforms are boosting growth in Mexico, creating a rush to buy everything from Trix cereal to Chrysler minivans. In Brazil, on the other hand, the fight against inflation has brought the country to the verge of recession.

Germany's drive to modernize is good news for U. S. manufacturers and should offset slowing growth in France and Italy. But a sudden surge in exports to Eastern Europe is unlikely.

While overall economic growth in Japan is slowing, domestic demand—including purchases of foreign goods—remains quite strong. The Japanese are buying more American software, blue jeans, and household products. Even with total import growth waning, the soft dollar and Japan's "buy American" push will boost sales of U. S. goods.

MARKET LOCK. The hopeful signs from overseas mean that "the industrial sector will weather this downturn better than it normally would," says Christopher P. Varvares, economist for Laurence H. Meyer & Associates. The benefit will accrue mainly to such large exporters as Boeing Co. and United Technologies Corp. But smaller companies that can adapt can also grab a chunk of the export boom.

International Equipment Services of Miami, Fla., for example, dismantles U. S. factories and relocates them for Latin American buyers. As parts of the region recover from the worst of the debt crisis, its Latin business is picking up. But sales are tougher to close now, says company President Charles F. McKay: "We have to explain that we can help buyers get financing, bring in technology, and train their workers."

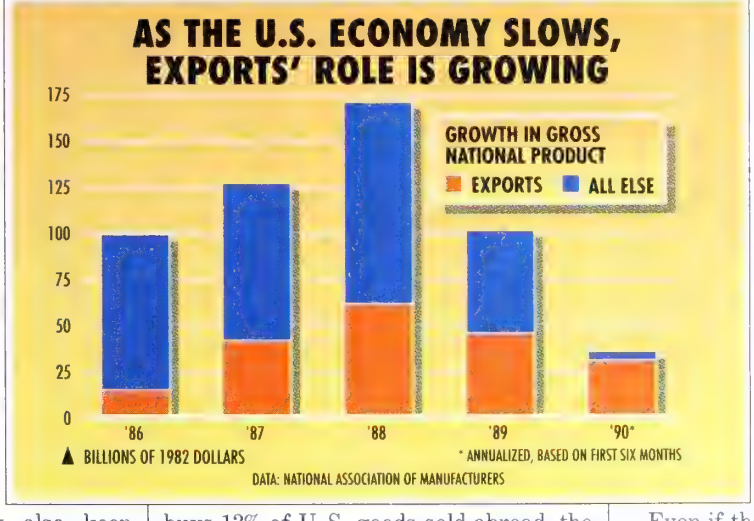
Thomas G. Digges Jr., owner of Virginia Semiconductor Inc., a silicon-wafer fabricating company in Fredericksburg, Va., relies on his 20-person outfit's flexibility and quick reaction time to capture small orders. "We can deal in two to four weeks, while the Japanese companies take three months and don't want to take small orders," says Digges.

Even if the export boom can't forestall a recession, it's likely to pay dividends for U. S. industry. Take Marvin Windows. Since it began shipping to Japan in 1987, the company has tightened quality control. Now, only one window in 3,000 arrives damaged. "If we can take the demands of marketing overseas and apply them to our domestic operation, we'll be more competitive at home," says sales rep Soltis. And that payback will far outlast the current business cycle.

By Mike McNamee and Paul Magnusson in Washington, with Antonio N. Pins in Miami, Resa King in Madison, Conn., and bureau reports

PHOTOGRAPH BY BOB MARSHALL

CAPITAL GOODS MAKERS PROMISE TO BE AMONG THE BIG EXPORT WINNERS



TRANSPORTATION

A BATTLE TO BUILD THE NEXT CHINA CLIPPERS

Boeing and McDonnell Douglas are rivals for a $7 billion Chinese order

For most U. S. companies doing business in China, last year's bloody crackdown in Tiananmen Square had a chilling effect. But for Boeing Co. and McDonnell Douglas Corp., the Chinese market has never been hotter: America's two commercial airplane makers are locked in a dogfight over China's biggest-ever aircraft order, a deal worth at least $7 billion. Each is actively courting allies among the Chinese political authorities. And they're even floating rival proposals to manufacture airplanes in Shanghai starting early next year.

Manufacturing in China would be a radical departure for Boeing. Unlike McDonnell Douglas, which has assembled planes in Shanghai since 1985, Seattle-based Boeing has never built a plane outside its own U. S. plants. But with China preparing to buy 150 narrow-body jetliners for its nationwide airline network—for delivery through 2006—Boeing couldn't resist. The company is pitting its 737-300 against its rival's new MD-90. The winner will likely be given preference on all Chinese orders for the next decade, a bonanza Boeing estimates could total $10 billion to $15 billion, including future widebody orders.

PLANE GEOMETRY. With that kind of money on the line, both companies are more than willing to meet China's demands. The manufacturers have agreed to teach Chinese workers how to build major components of the winning airframe—tail sections, fuselage panels, and possibly even the wing. It's a big step up in involvement even for McDonnell Douglas, which has shown the Chinese how to make a few parts of the planes it assembles in Shanghai. Is China's fickle market worth the trouble? Boeing and McDonnell Douglas think they can't ignore its potential. "It's easy to say China is important but not that important," says Lawrence W. Clarkson, Boeing's senior vice-president for government and international affairs. "But that's not how you stay a leader in this business."

Foreign investors already in China are eyeing the contest carefully. Many have regarded McDonnell Douglas as a model of how to do business with the comm nist giant. The company's executiv have cultivated industrial and politic leaders for more than a decade. Sin 1985, the company has helped Shangh Aircraft Industrial Corp. produce MD-82 passenger jets and has orders options for 27 more. Some of the MD- components are also exported to th U. S. But the new order was supposed be the real payoff. If Boeing snares other companies may have to reevalua the traditional, long-term approach doing business in China. The idea is u settling to McDonnell Douglas, to sa the least. Says Gareth C. C. Chang, pre ident of McDonnell Douglas Pacific Asia Ltd.: "I'm not prepared to ta about losing."

China gets a sweet deal no matt which company wins. Th government is demandi that domestic content equal to 51% of the a frame's value and that ha of China's expenditure offset by export contrac for parts and assemblie Similar rules would apply subcontractors. Beijin wants 30% of the parts us in the jet engines to be ma in China. That order, wor an estimated $3 billion, w go to General Electric Co. Boeing wins. If McDonne Douglas prevails, a consc tium called Internation Aero Engines, which i cludes Pratt & Whitney a Rolls-Royce PLC, would su ply the engines.

DIVIDED. Under Boeing's pr posal, China would assemb the planes. In addition, would build componen both for the planes asse bled in Shanghai as well for 737s Boeing builds in S attle. Moreover, Boei would share the up-fro costs of starting the pr gram and send up to 2 U. S. technicians to assi But it would largely be se ing its expertise, not buyi in. McDonnell Douglas, the other hand, proposes become an equity partner the Shanghai operation. A McDonnell Douglas pledg that by 2006, China will able to fabricate 90% of t MD-90 airframe.

The Chinese aviation i dustry is deeply divided ov which is the better deal. T Aerospace Industry Minist

McDONNELL DOUGLAS HAS BEEN BUILDING JETS IN SHANGHAI SINCE 1985

DUEL IN THE AIR

Which of the two giant companies will make 150 planes for China? Some highlights:

▶ **BOEING** Aided by up to 200 Boeing technicians, China would assemble 737-300 jets, supply parts, and build components for export. Boeing would share some of the cost

▶ **McDONNELL DOUGLAS** The manufacturer would become an equity partner in a venture to build MD-90 jets. It promises China would build 90% of the airframe by 2006

refers McDonnell Douglas' proposal, rguing that it will do more to benefit hinese industry. And because the hanghai workers already have been rough the learning curve on the MD-2, they would be poised to roll out the rst MD-90s in 1996, China's target.

But the Civil Aviation Administration f China (CAAC) is solidly behind Boeing. AAC, China's national airline, has been loyal Boeing customer since the coun-y bought its first 707s after Richard ixon visited Beijing in 1972. Since then, oeing has sold China 62 jets, worth an stimated $2 billion, and has another $2 llion in orders. In contrast, McDonnell ouglas has sold China five MD-11s ong with the MD-82s, while Airbus In-ustrie has sold it three A300s and five 310s.

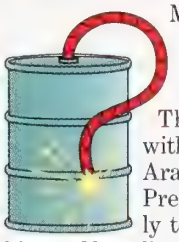
EEP TROUBLE. CAAC thinks the McDon-ell Douglas planes are too heavy for hina's crude airstrips. The airline's offi-als also argue that Boeing would be a ore stable partner. Because of its oated cost structure and production itches, McDonnell Douglas' transport rcraft division is in deep trouble. For e first three quarters of this year, it st $215 million, after a $222 million loss 1989. "I would put my money on oeing," says Jim Eckes, director of In-swiss Aviation Co., a Hong Kong-sed leasing firm. "If you were China, th whom would you ally yourself—the st manufacturer in the world or a mpany that's in a lot of turmoil?"

The division in China's political ranks as dramatized starkly this fall. In early ctober, McDonnell Douglas' Chang ought he was close to locking up a al. On Oct. 4, he signed a preliminary reement for a joint venture with the hinese to ratchet up MD-90 production. it two days later, all bets were off. AC refused to sign the agreement. At e airline's urging, on Oct. 6 a Boeing legation led by Chairman Frank A. rontz popped up in Beijing to meet th Chinese Premier Li Peng. Shrontz sured the Chinese that Boeing was se-ous, specifying the 737's price and how ich of the up-front costs the company ould share. The result was just what wanted. In a statement, Li praised oeing's contribution to Chinese avia-n, and the competition was rekindled. Ultimately, the choice between Mc-nnell Douglas and Boeing will be ade by the powerful State Planning mmission—and perhaps by China's p political leadership. "There's no estion McDonnell Douglas deserves e contract," says a European aircraft ecutive in Beijing. "They've gone the tra mile." But in the end, being a mod-corporate citizen may not be enough.

By Pete Engardio in Hong Kong and ri Jones Yang in Seattle, with Lynne rry in Beijing

Commentary/by Bill Javetski

DESERT SHIELD: IT'S THE HOME FRONT THAT NEEDS SHORING UP



Most Americans will feel a patriotic shiver as they watch President Bush sit down to Thanksgiving dinner with the troops in Saudi Arabia. But unless the President can move swiftly to shore up support for his gulf policy both at home and abroad, the public-relations benefits of his holiday sojourn will go for naught.

The fact is that Bush is losing the momentum and public goodwill he had in August after his decisive response to the invasion of Kuwait. Even as Bush nearly doubled troop deployments, to 400,000, in early November, his support on the home front sagged. A new *USA Today* poll shows that a bare majority of the American public now supports the President's policy. And the multinational coalition arrayed in opposition to Iraq is showing signs of strain.

Unless the President can put some punch in his policy, he'll face a choice between two potentially disastrous alternatives: Trying to outwait Saddam while the U. S.-led coalition runs the risk of slowly unraveling, or going to war without the wholehearted support of the American public.

SALES JOB. Bush now must put as much effort into persuading his fellow Americans as he has into jawboning Saddam. And he should do the job himself, rather than risk any further gaffes from members of his Administration, such as the beaut from Secretary of State James A. Baker III, who appeared to reduce the whole Desert Shield operation to an attempt to save American jobs.

If Bush follows the advice of Senator Richard Lugar (R-Ind.) and brings Congress back for a special session, he may be able to shore up his position. By requesting a sense-of-the-Congress resolution supporting U. S. policy in the Persian Gulf—a step short of a declaration of war—he'll probably get a few days of noisy debate and, at the end, overwhelming support.

Still, Bush will have to control the debate over the President's legal authority to launch war on his own. And in the wake of the midterm elections and the budget debacle, that won't be easy. "The President has no legal authority, none whatsoever" to order an attack without congressional consent, says Senate Majority Leader George J. Mitchell (D-Me.).

NO COMPROMISE. Bush must also persuade Congress, the public, and U. S. allies why he believes the temptation of partial victory should be resisted. Some coalition partners have suggested that they would be satisfied if Iraq withdrew from most of Kuwait and restored the al-Sabah family to the sheikdom. Bush's task is to make them see why only the complete and unconditional withdrawal of Iraq from Kuwait is acceptable. As a senior Administration Middle East strategist puts it: "If Saddam can present himself to the Arab world as someone who stood up to the U. S. and the whole world and got away with it, the entire Arab world will believe that his powers are nothing short of mythic."

AT EASE IN THE SAUDI SANDS

If Saddam's strain of Arab nationalism prevails, Palestinians will have little incentive to talk peace with Israel. The risk of an Arab-Israeli conflagration would soar. Oil markets would stay chaotic. And the U. S. might be on the defensive in the Middle East, literally and figuratively, for many years.

Bush thinks such an outcome would be more costly to the U. S. than war. Demanding capitulation from Saddam makes it essential that Bush first solidify his position on the home front. That will take persuasiveness and consistency. But just when Bush needs them most, those qualities are even more lacking than before.

TURNLEY DETROIT FREE PRESS-BLACK STAR

GASOLINE PRICES

AMOCO PUMPS IN NEW YORK: MAJOR OIL COMPANIES' HI-TEST SALES ARE OFF AS MUCH AS 25%

SUPER PREMIUM'S SUPER PLUNGE

Shell-shocked drivers are avoiding hi-test, where most of the profits are

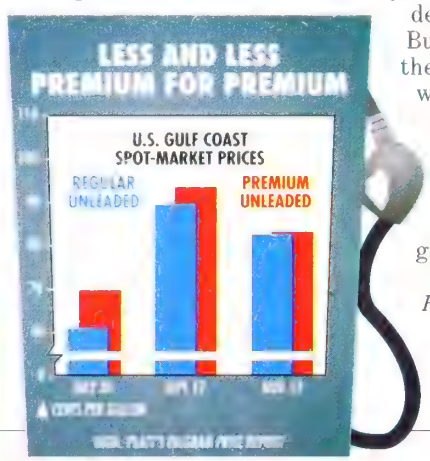
Premium gasoline may never have rivaled BMWs, car phones, or platinum credit cards as a status symbol, but you couldn't tell that at the service station. Drawn by new super grades and flashy commercials, in recent years, motorists flocked to hi-test over less expensive grades. By last summer, premium was a $31 billion market and accounted for about one of every four U. S. gallons sold.

But in a flash, premium has lost its luster. Since the Aug. 2 Iraqi invasion of Kuwait began pushing crude and gasoline prices up, motorists have been switching to cheaper grades in droves. Major oil companies' premium sales have dropped by as much as 25%, according to a BUSINESS WEEK canvassing of oil companies and analysts. The Washington-based Service Station Dealers of America reports the decline has reached 80% for some independent dealers.

BALKING YUPPIES. That's wreaking havoc. In the spot market, where gasoline is traded before it reaches the wholesale level, buyers have vanished. Premium on Nov. 13 fetched an all-time-low quarter of a cent per gallon more than regular unleaded—down from a 12¢ spread in July (chart). "Premium demand has collapsed," says Kenneth D. Miller, senior principal at Houston consultant Purvin & Gertz Inc. "No one wants it." Mid-grades are also off, from 3.5¢ over regular unleaded, to even.

Making matters worse, the narrow spot-market gap is not mirrored at either the wholesale or retail level. Since August, self-service unleaded-regular prices have risen an average 31¢, to $1.38 a gallon, surpassing the old premium price, the American Automobile Assn. reports. The North Hollywood (Calif.)-based Lundberg Survey now puts premium prices at $1.52 a gallon—and that is just too much to swallow. Even affluent customers are balking. "All the BMW guys are going back to regular," says Bruce E. Lazier, oil analyst at San Jacinto Securities Inc. in Dallas. "It's the demise of the yuppie market."

What a loss for the oil business. Refiners can generate huge spreads on premium gasoline. It only costs about 4¢ a gallon more to make than regular unleaded but typically sells for 10¢ to 15¢ more on the spot and wholesale levels. Given this incentive, oil companies have spent tens of millions of dollars to advertise the benefits of higher-octane premium grades and to build new refinery facilities to churn it out. Partly as a result, refiners have enjoyed a string of strong profits since 1987.



The story was just as sweet for reta ers. Regular unleaded rarely sells f more than a few cents per gallon ov wholesale. But premium grades are o ten marked up 15¢ or more. Since maj oil companies such as Chevron Corp. ar Mobil Corp. get as much as 35% of sal from premium, and some independe dealers even more, premium has becom the bread and butter for many a statio

ONLY TEMPORARY? So much for the goo old days. Carl Allen, owner of Latha Mobil Mart in Albany, N. Y., says prem um sales have fallen from 35% of h business to 22%. That, plus a 30% slide total volume, has cut profits 20%—for ing him to slash employee hours. "Obv ously, all my expenses have continued t rise, and the only place I can cut back this point is staff," he notes.

The premium fall hurts major oil com pany retail sales, too. But they also hav profitable production and refinery arm and analysts don't expect premium's ta spin to make a big dent in fourth-qua ter earnings. Besides, the majors bu some gasoline on the spot market, whe premium and regular unleaded now co about the same. Michael Canes, chie economist for the American Petroleu Institute, says that high-grade bargai may help offset volume declines.

Recently, the wholesale gap betwee premium and regular unleaded ha closed by a few cents a gallon—but r tail prices probably won't reflect tha change. Companies insist the squeeze o hi-test is only temporary, even at pre ent high prices. Chevron says it won scale back at the pump even though pr mium sales have slipped from 35% t 30% of gasoline sales. "They'll sacrifi for a while, but people will come back says James E. Huccaby, Chevron's pri ing manager. Some see another reaso for keeping premium prices high. On about 15% of cars actually need prem um's higher octane. And if it moves clo er to unleaded regular, "people migh realize it's a commodity instead of unique product," says Houston consu tant Thomas C. Ryan. No oil company dealer wants tha But gasoline is one the few product where consume have a wide choic of prices. Unles prices fall, pr mium pump are likely to kee gathering cobwebs.

By Mark Ivey i Houston, with Robe Buderi in Ne York and Lo Therrien i Chicag

S UNCLE SAM GOING TO BUST UP APAN'S R&D PARTY?

ommerce and MITI are at odds over a shared-research proposal

he reaction was not what Japanese officials had in mind. When their country launched a major internanal effort to develop the computersisted, "intelligent" manufacturing chnologies of tomorrow—with Tokyo king up most of the $1 billion tab—ey expected applause and gratitude. stead, they touched off a temst. United Technologies Corp., Rockll International Corp., and university entists were ready to hop aboard the panese initiative earlier this year. But number of companies and U. S. govnment officials claimed it was a heme designed to steal nerican knowhow. The mmerce Dept. and European Community arged into the fray, nporarily halting the tiative.

Now, the storm may fily come to a head. On v. 19, Commerce, the and Japan's Ministry International Trade & lustry (MITI) are schedd to begin potentially ntentious negotiations at could radically reape the program, known the Intelligent Manuturing System (IMS).

GGARD? The U. S. is ssing for more governnt control to assure at Japan reveals its nufacturing secrets in urn for access to cutg-edge American techogy such as computered design. If the gotiators can't agree ickly, however, some npanies worry that Ja- and Europe might develop new hnology and international standards their own, leaving the U. S. a hapless gard.

The plan started with the best of intions. Hiroyuki Yoshikawa, a profesat the University of Tokyo, thought was time Japan shared some of its nufacturing prowess. His goal: mak- manufacturing hardware and softre "smart" enough so that design nges could be turned with lightning ed into products.

Enter MITI. The agency saw the joint effort as a way to strengthen the industrial giants against the growing muscle of such industrializing nations as Taiwan, Singapore, and Korea. It also saw IMS as a way to devise computer standards for electronic links among far-flung factories, thereby boosting productivity.

When the Japanese floated the idea to Commerce officials, they were ignored. So in early 1990, MITI signed up the Society of Manufacturing Engineers, based in Dearborn, Mich. By March, MITI's IMS office had received nearly 100 proposals from companies and universities. United Technologies and Rockwell were each prepared to ante up $80,000, which would let them tap into corporate and academic research from the program.

Then came Commerce. Assistant Secretary Deborah Wince-Smith accused the Japanese of making an end run around a high-level U. S.-Japan technology cooperation agreement she had helped negotiate in 1988. James L. Koontz, CEO of Kingsbury Machine Tool Corp. in Keene, N. H., described IMS as part of "a Japanese master plan to dominate the world manufacturing arena."

Since then, Commerce and the EC have won substantial concessions. The Europeans insisted that the Japanese drop the idea of a separate research institute in favor of research on shop floors, so technology would quickly move into production. The U. S. demanded that the scheme be an official agreement between countries. But tougher issues remain. Washington, for instance, insists the group be open to all. "If the Japanese truly want to have international collaboration, we're confident they will include backyard competitors like Korea," sniffs one top Commerce official.

'BIG BOYS.' Another thorny issue is funding. In the original plan, Japanese companies and the government were to put up 60% of the $1 billion—to be spent over 10 years—with the rest coming from European and U. S. companies. But a government-to-government accord might mean Uncle Sam would have to contribute—anathema to the industrial-policy foes in the Bush Administration.

Some experts say little will be lost if negotiations drag on. John A. Simpson, director of the center for manufacturing engineering at Commerce's National Institute of Standards & Technology, contends that since Japan's strength is implementing advances, "I don't think they have any technology to transfer to us." Others in the U. S. and Japan say that's naive. "Just look at who is participating in this effort—Fanuc, Yasukawa Electric, Mitsubishi Electric, Toyota, Nissan," says Kenzo Inagaki, the point man on the project for MITI. "Can any American familiar with manufacturing honestly claim that U. S. firms have nothing to learn from these companies?"

In fact, many American companies believe that they have far more to gain than the Japanese, who already are tapping leading American technology. That's why, regardless of the outcome of the talks, some U. S. companies may end up collaborating with their Japanese or European counterparts. "Whatever Washington does, we are big boys," says John F. Cassidy, director of technology management at United Technologies. "We are going to figure out a way to do this."

By John Carey in Washington, with Neil Gross in Tokyo and bureau reports

JOHN CARE

BANKING

BREEDEN SAYS THE RULES WOULD PREVENT THE KIND OF HAVOC THAT FUELED THE S&L CRISIS

THE BEAN-COUNTERS HAVE THE BANKS COWERING

FASB's proposed accounting changes on portfolios may batter earnings

It's enough to make the calmest banker quiver right down to his wing tips. Already awash in red ink from troubled real estate and unpaid Third World loans, the banking industry is facing a new development that could wreak even more havoc on balance sheets. The threat is coming from—of all people—accountants.

Under pressure from Securities & Exchange Commission Chairman Richard C. Breeden, the Financial Accounting Standards Board (FASB) voted on Nov. 14 to draft new rules that could radically alter the way banks account for their securities investments. If Breeden gets his way, FASB could force banks to record their portfolios at current market value instead of original purchase price. Breeden feels the step is necessary to eradicate some of the accounting abuses that plagued the savings and loan industry.

The SEC's regulatory power play faces vigorous opposition from the banking industry and its federal overseers, who fear volatile markets could jeopardize bank earnings and capital. In a shaky market, the accounting changes would be "an egregious blow to the banking industry," complains John W. Logan, executive vice-president of First American Corp. in Nashville.

The seemingly arcane rule change could force banks to change the composition of their securities portfolios, creating a onetime shock for the markets. And Breeden has said the proposal is a first step toward requiring banks to change the way they account for all of their assets and liabilities.

Breeden's critics see his maneuver as a way to show up banking regulators and establish a reputation as a tough cop deserving of more power as the walls between banks and securities firms crumble. But Breeden insists he is just trying to inject some realism in bank accounting to avoid a repetition of the thrift debacle. In the 1980s, S&Ls propped up their earnings by selling securities that had appreciated. They held on to securities—booked at their original purchase price—that had gone sour. The combination helped mask the industry's hemorrhaging.

But the banks argue that Breeden's remedy could threaten the banking system. For one thing, in periods of big interest-rate and market swings, banks' earnings and capital levels would fluctuate wildly from quarter to quarter and year to year (table). And banks might have to shorten the maturities of their loans and deposits, which would hurt consumers.

POWERFUL FOES. What's more, the banks might have to shed longer-term investments for less volatile, shorter-term securities. With $640 billion of the industry's $3.6 trillion in assets in securities—much of it in Treasuries—such wholesale switches could disrupt the market.

Bank regulators are equally fearful that the rule change could damage the industry's fragile health. Federal Reserve Chairman Alan Greenspan, Comptroller of the Currency Robert L. Clarke and Federal Deposit Insurance Corp. Chairman L. William Seidman have lined up against the proposal. In a Nov. 9 letter to Breeden, Greenspan warned that many bank liabilities and assets, such as loans, don't have ready market values. And bank regulators already force banks to acknowledge nonperforming loans by requiring institutions to boost their reserves against losses.

FASB has the unenviable task of trying to reconcile the concerns of both bankers and Breeden. The SEC chief has made it clear to FASB and the American Institute of Certified Public Accountants that if they didn't take on the job, the commission would. "There seems to be tremendous hostility to banks at the SEC," says Logan. The drive for an accounting change "seems to be an excuse for vengeance on the banks because the S&Ls have gone down the tubes."

FASB isn't expected to issue a formal proposal for perhaps two years. It has a wide range of options, from requiring more disclosure of changes in market valuation to ordering up an entirely new accounting regime. But one thing already is clear: The aftershocks of the thrift crisis are going to be felt long after the last lone shopping-mall S&L has been shuttered.

By Catherine Yang
Washington

MARKING TO MARKET: THE IMPACT

Bank	Pretax 1989 Earnings/Losses	Results with securities at market value	Change in percent
	Millions of dollars		
CITICORP	$1,533	$2,059	34%
J. P. MORGAN	-1,100	-921	16
MANUFACTURERS HANOVER	-362	-353	2
CHEMICAL	-454	-516	-14
CHASE MANHATTAN	-469	-645	-38

DATA: CENTER FOR THE STUDY OF FINANCIAL SERVICES

Ten years ago,
the PC changed the way
you do business.

Today,
Windows Computing
changes the way you do
business on a PC.

INSURANCE

RISKS ARE ONE THING, LOSSES ARE ANOTHER

Home and auto policy woes have big insurers running for cover

Selling home and auto insurance used to be so simple. Peddling their contracts through independent agents, Aetna Life & Casualty Co., Travelers Corp., and the other major underwriters had a huge chunk of the market. Not any longer. These days, intense competition, tight profit margins, and regulatory headaches make home and auto insurance anything but easy for the industry titans. This year, a number of major players have simply pulled out of states where business got too tough. CIGNA Corp. and Crum & Forster Inc. have given up on home and auto insurance altogether.

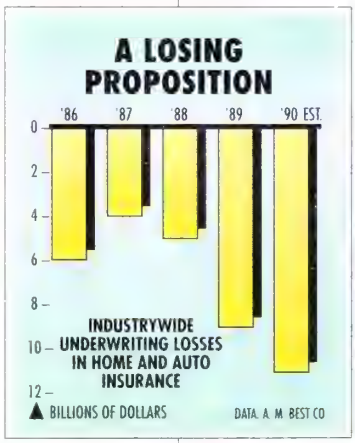
For those who remain, radical changes lie ahead. Besides retrenching, many companies are attacking agents' commissions and operations, raising hackles as they go. Most agents who work with Aetna will see their commissions cut by about half. Travelers has already eliminated 175 jobs in home and auto at corporate headquarters, severed its relationships with about 1,100 agents, and revamped its commission structure so agents' pay is based on the profitability of the contracts they sell. ITT Hartford Insurance Group is taking over the servicing of most of its home and auto policies, a task traditionally handled by agents. David M. Klein, a senior vice-president at ITT Hartford, figures the move and a new commission structure will cut costs by about 6%.

LEAN RIVALS. In essence, the big insurers are starting to act more like their direct-selling rivals. These lean, low-cost companies bypass agents entirely. Selling home and auto insurance directly to customers for up to 15% less than the multiline companies, they are making money where the big players aren't. Geico Corp., for example, earned $213.1 million last year on $1.6 billion in revenues. This year it's adding a company that sells home and auto in rural areas and increasing marketing expenditures by about 5%, says Chief Executive Officer William B. Snyder.

The big diversified companies that sell through agents need to get moving. Direct sellers currently control about 63% of the home and auto market, up from 59% five years ago. Robert W. Klein, director of research for the National Association of Insurance Commissioners (NAIC), says their market share could grow to 75% within the next few years. Says John J. Martin, a senior vice-president at Aetna: "You don't have to be a rocket scientist to see the trend."

Compounding major insurers' problems are unforgiving state regulators. Medical and auto-repair expenses are rising faster than auto rates. According to A. M. Best Co., underwriting losses in home and auto grew 15% last year, to $10.65 billion (chart). Nevertheless, regulators in such states as California and Pennsylvania forced insurers to cut rates by as much as 20%.

Independent agents are understandably unhappy about the cutbacks. William "Bob" Braddy, president of Braddy Insurance Inc. in Dillon, S. C., calls what's happening "a crisis." He says that he has watched several fellow agents lose all of their auto business as the number of auto insurers in South Carolina has fallen by about half since last year. Last winter, the shakeup hit him where he lives: Maryland Casualty Co. announced that it was leaving the state. The move affects about 10% of Braddy's $2.5 million in annual sales. He figures that agents will be forced out of home and auto altogether and will have to survive on their commercial insurance business. Sighs Braddy: "I guess it's just evolutionary."



The Independent Insurance Agents of America, an industry group, accuses insurers of moving too fast. "Our biggest problem is that companies are overreacting to the problems and not sticking it out," says Jeffrey M. Yates, executive vice-president of the organization. The group is pushing for an industrywide computerized system, similar to an airline reservation system, that would help independent agents sell policies at a lower cost. Most insurance companies agree that improved automation would help cut costs, but they are generally opposed to an industrywide system.

'OUT OF WHACK.' For the time being, however, they seem most interested in pulling out of troublesome markets (table). Travelers this summer announced that it is dropping home and auto in nine states where it has less than 2% market share. "Our expense ratio was just out of whack," says Dale S. Hammond, a vice-president at Travelers. Aetna is withdrawing from six states and is suing Massachusetts to get out of that state. And ITT Hartford says it will stop providing personal auto insurance through independent agents in Michigan. According to the NAIC, 639 companies stopped offering personal lines in at least one state in the past five years. Nearly 90% of those companies sold by agents.

That's good news for direct sellers such as State Farm, which controls about 20% of the U. S. private-passenger auto insurance market. CEO Edward B. Rust Jr. chuckles when he hears his competitors are trying to knock costs down to State Farm's level. He boasts that by the time they catch up to him, his costs will be even lower. "It's survival of the fittest," he crows. And the ranks of the fittest are getting thinner every day.

By Lisa Driscoll in Hartford

THE BIG INSURERS RETRENCH

AETNA LIFE & CASUALTY Stopped writing new auto policies in Rhode Island in January. Has since begun pulling out of six states. Lawsuit blocking attempt to leave Massachusetts

CIGNA Began pulling out of home and auto business in May

CRUM & FORSTER Began pulling out of home and auto business in April

ITT HARTFORD Stopped selling through agents in Michigan, started withdrawing from South Carolina in October. Lawsuit blocking attempt to pull out of New Jersey

TRAVELERS Began pulling out of auto insurance in California two years ago. Started leaving nine more states in June

DATA: BW

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LABOR

UNDER REPAIR: GREYHOUND IS BUSING 95% OF THE PASSENGERS IT DID BEFORE THE WALKOUT

LABOR MAY STILL HAVE GREYHOUND COLLARED

Can the company exit bankruptcy without settling the strike?

The pickets appear only sporadically now at Greyhound Lines Inc. bus terminals. And strike pay has run out for the 6,000 drivers. But while Greyhound's parent, Dallas-based GLI Holding Co., wishes the bitter walkout would be forgotten, the company's reorganization in bankruptcy court may still hinge on the nine-month-old dispute.

Greyhound, which expects to file its reorganization plan on Nov. 19, must convince creditors that it can severely limit the union's staggering potential claims for back pay. The company would be liable for such claims if it loses National Labor Relations Board charges that management precipitated the strike by imposing a new contract without sufficient bargaining. Greyhound's strategy is to ask the bankruptcy judge to estimate its liability and put a cap of $40 million on the ultimate amount the company would have to pay. By fixing its potential costs in the worst-case scenario, management hopes to persuade creditors to let the company proceed with its reorganization plan.

MAKING PEACE. But this legal maneuver is dicey at best. NLRB officials say Greyhound's back pay liability could hit $86 million for the past nine months alone. And union lawyers question whether the judge has the legal right to override the NLRB's estimate. The union also is opposing Greyhound's effort to put members' claims at the bottom of the bankruptcy priority list. So it could take years of court battles before creditors know the real risk of following management.

As a result, some creditors question whether Greyhound can emerge from Chapter 11 without labor peace. If nothing else, they argue, a resolution of the ugly dispute could increase ridership in the heavily unionized Northeast, where the strike has pinched the most. "It's not clear the company has an effective legal strategy to resolve the labor claims quickly," says Leigh Walzer, an analyst at R. D. Smith & Co. in New York.

A negotiated settlement with the Amalgamated Transit Union appears remote under Greyhound Chairman Fred G. Currey, who led a leveraged buyout of the company in 1987. Once welcomed by the drivers as Greyhound's savior, Currey claims that the violence of the strike's early days was a union-orches-

A union official says the solution is 'to sell Greyhound to somebody who wants to run a bus company'

trated attempt to drive the company in bankruptcy. Union leaders hoped to v bigger pay raises from new owners, charges, or to buy the company chea themselves.

The union is equally embittered. H ward M. Vezza, head of a Philadelp ATU local, says the only solution is sell Greyhound to somebody who wa to run a bus company." Indeed, the A has retained Blackstone Group, a N York investment banking firm, to h cut a deal to buy the bus line.

Others are interested in a sale, t "Most creditors think there is a value third-party bidding," says one creditor attorney. Even if they don't ultimat support a sale, he says, bidding co help creditors force improvements management's reorganization plan. T preliminary blueprint seems too optim tic about Greyhound's business pr pects, he says: "It doesn't allow mu room for error." Greyhound Preside Frank J. Schmieder concedes the plan "difficult, but we think it's realistic."

At first blush, Greyhound may r seem like a bargain for any buyer. Ev creditors admit that its labor unrest, a ing fleet, and soaring fuel costs could hurdles to a sale. But the basic bus bu ness is still in demand and capable producing profits. "This company h some really good value," says Amy Minella, senior vice-president of Delt Asset Management. She thinks risi fuel costs might even help Greyhou by luring those who can no longer ford the airlines' hefty price hikes.

SLEEKER. Greyhound has rebuilt son what since the strike. It now attra more than 95% of the passengers that did before the walkout and runs 85% the miles. After suffering $87 million losses in March, April, and May, racked up operating profits of $21 m lion through September. Still, margi are far short of last year's. "We had r been able to adjust our fixed costs d ing that period," explains Schmieder.

The bankruptcy process could help whip Greyhound into fighting trim. Ma agement hopes to renegotiate or can leases at some 30 bus terminals. And plans to end leases on almost 400 of 3,200 buses. The work force has be slashed 34%, to 7,500. And new wo rules and computers should allow Gre hound to cover the same territory w fewer buses and fuller loads, Schmied says. He figures fixed costs can be c by $15 million, or 15%.

That would be a good performance the midst of a bad economy. The or question now is whether creditors w give Greyhound's current managers t chance to try to pull it off.

By Wendy Zellner in Dal

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POLITICS

HAVE YOU HEARD THE ONE ABOUT THE FUNNY CAMPAIGN ADS?

They worked for Wellstone in Minnesota—and may start a trend

Political advertisements rarely make you chuckle. Even before viciously negative spots became the norm, political consultants steered clear of comedy. Too undignified. Too flippant. Too weird.

But the humor taboo was broken in Minnesota this campaign season—with boffo results—by Bill Hillsman, the creative director at Kauffman Stewart Advertising Inc., a small Minneapolis shop, whose talents previously were devoted to hawking shopping centers and snowmobiles. His candidate was Democrat Paul D. Wellstone, a liberal college professor who carried a thin wallet and an equally thin political resumé. In one of the year's biggest upsets, Wellstone managed to edge out two-term Republican Senator Rudy Boschwitz. Hillsman contributed mightily to the victory with a whimsical television ad campaign that attracted news media attention throughout the state and brought Wellstone additional exposure he could never have afforded.

FRESH LOOK. Hillsman, 37, always had an independent streak. He grew up on Chicago's North Side, a White Sox fan deep in Cubs country. As a student at Carleton College in rural Northfield, Minn., Hillsman struck up a friendship with Wellstone, a political science professor. Fond of Wellstone's populist politics, Hillsman agreed when Wellstone asked for his help early in the campaign. Hillsman worked for production costs plus about 25% of his normal fee. "He's got a conscience," says Minneapolis adman Thomas J. McElligott, an early Hillsman mentor. The discount was a key boost for Wellstone, who raised only $1.2 million, one-seventh Boschwitz' war chest.

Through his own free-lance ad shop, North Woods Advertising, Hillsman assembled a team from the Minneapolis advertising community. The ads they created looked fresh against other candidates' campaign clichés. The most celebrated was "Looking for Rudy," a two-minute spot whose style was lifted from the movie *Roger & Me*. It featured an exasperated Wellstone fruitlessly scouring the Twin Cities to confront his foe. The ad ran only three times—but got dozens of free showings on local news reports.

In another piece, called "Fast-Paced Paul," Wellstone announced he didn't have $6 million to spend, so he'd have to talk fast, then raced frantically from scene to scene cramming his personal background and his stands on major issues into a 30-second spot.

The ads weren't all sweetness and light. One showed the candidate drawing a skull and crossbones while talking about his rival's environmental record. But Wellstone avoided overtly personal attacks. As Adam Platt, media critic for the *Twin Cities Reader*, an alternative newspaper, puts it: "He was effective in damaging Boschwitz without looking in his underpants drawer."

The hip, quirky, self-mocking style of Hillsman's ads is clearly a product of the David Letterman generation. Most political ads, by contrast, seem stuck in the 1970s. And the Hillsman style is bound to become more popular, especially among long-shot challengers with little to lose, says M. Adam Goodman, vice president at Robert Goodman Agency Inc. in Baltimore, a specialist in GOP political advertising, which created the more conventional Boschwitz ads. "In 1992, people are going to pull out all the stops on creativity," Goodman says. But, he predicts, "people will go too far and make it silly instead of salient."

Hillsman himself sometimes lets his imagination run too wild. One Hillsman idea mercifully put to rest: former Minnesota Vikings defensive lineman Alan Page intoning: "Vote for Paul Wellstone—or I'll kill you!"

SEX SCANDAL. Hillsman believes that he had a big edge because he was local talent, not one of the national political consultants who ride the election circuit every two years. "They're in Washington, D. C.," he says. "They don't know what's going on out here."

Big-name consultants such as Democrat Robert D. Squier scoff at that. "I think [Hillsman] should be congratulated on the job he has done," he says, but "maybe he ought to win one more before he becomes an expert." Squier says that sexual misconduct charges against Republican gubernatorial candidate Jon Grunseth seemed to turn voters against other state GOP hopefuls. Without that, he says, Wellstone "wouldn't have had a chance."

Certainly, the sex scandal, combined with Boschwitz campaign miscues, were key factors in Wellstone's victory. But the Hillsman commercials positioned Wellstone to take full advantage.

Hillsman may get a chance at another win: He's likely to be deluged with offers for the '92 campaign. But he may not accept. "I don't want to be just a political consultant guy," he says. "A steady diet of this, and I'm afraid I'd become one of them."

By Russell Mitchell in Minneapolis

Adman Bill Hillsman's work is hip, quirky, and self-mocking, a product of the David Letterman generation

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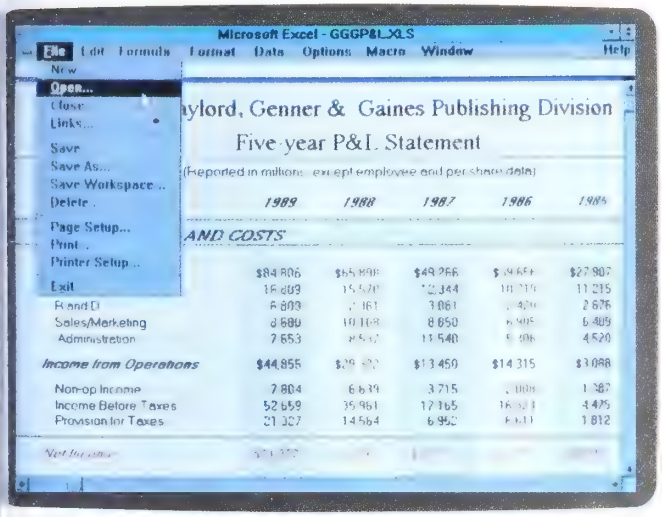
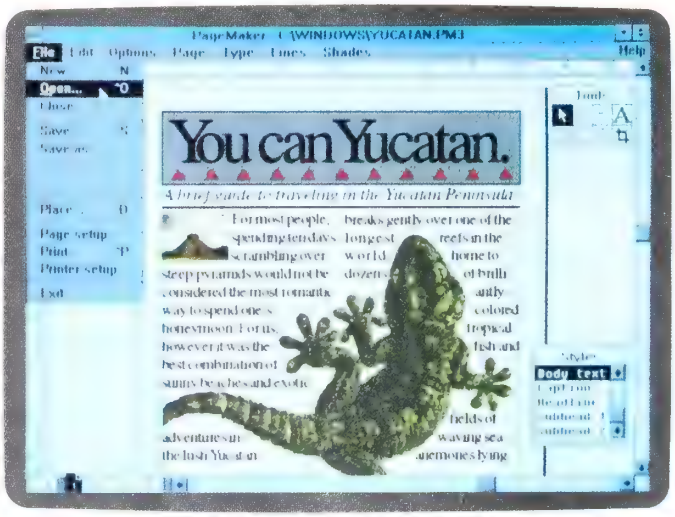
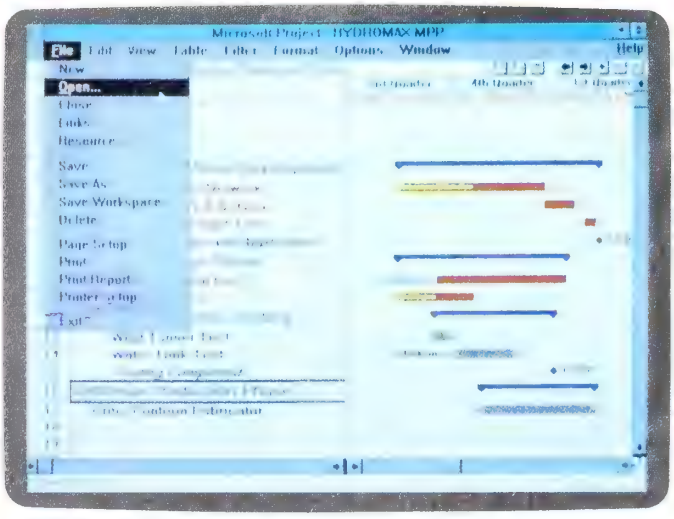






In Business This Week

EDITED BY HARRIS COLLINGWOOD

MORE KNOCKING AT LOCKHEED'S DOOR

▶ Harold Simmons is at it again. On Nov. 12, the Texas billionaire announced a $40-a-share, $1.6 billion bid for Lockheed. It's the latest move in a nearly two-year struggle to wrest control of the defense-and-aerospace giant from CEO Daniel Tellep. But shareholders aren't likely to bite. Even though the stock is trading in the low 30s, Lockheed's high-tech businesses and improving earnings make the company worth at least $55 a share, say analysts. It's also doubtful that Simmons' NL Industries could arrange financing: Lockheed is being asked to raise half the money, in effect taking itself private.

While the bid is likely to fail, it does compel Tellep to devise a plan to give shareholders a better return. If he can't, he risks defeat in a proxy fight Simmons is expected to lead next year.

NORTHWEST'S CEO DISEMBARKS

▶ Northwest Airlines CEO Fredrick Rentschler resigned on Nov. 9, only four months after joining the carrier. Rentschler, who will remain on Northwest's board, cited "family reasons" for his departure. Sources close to the company say Rentschler, who expected to oversee the company's expansion, was unhappy with having to cut routes and find other savings.

Rentschler may be saving himself some grief. On Nov. 12, Northwest announced that third-quarter net income fell 32%, to $91 million. And the company says it expects a fourth-quarter loss.

AN EDSEL OF AN AUCTION AT SOTHEBY'S

▶ The disastrous sale of Henry Ford II's art on Nov. 12 was "not a terrible disappointment" to his heirs, says their lawyer. But it certainly was for Sotheby's, which now owns the 13 lots, out of 35, that didn't sell. The auction house had guaranteed the Fords more than $50 million for the works, which fetched only $30.4 million. On Nov. 13, Sotheby's stock opened late, dipping near its 52-week low of 8⅞ in heavy trading.

Sotheby's plans to sell the works privately after the big New York Impressionist and Modern art auctions end on Nov. 16. It estimates that it will lose $5 million, pretax, on the guarantee, vs. pretax earnings of $112 million so far in 1990. A Nov. 13 auction fared better, but Sotheby's was stuck with four more guaranteed lots. Diana Brooks, CEO of Sotheby's North America, plans "a more conservative policy" on guarantees in the future.

BUSINESSLAND LOGS ON A NEW PRESIDENT

▶ Can someone who sells chairs and tables sell computers? On Nov. 12, Businessland named Edward Simon, the former president of furniture maker Herman Miller, as its new president and COO. Simon has taken over day-to-day operations at the $1.4 billion computer retailer, and David Norman remains CEO.

While Simon, 51, is no computer-industry veteran, his experience with distribution and financial controls should serve him well at Businessland. The new job will be tough: After reporting a $23 million loss in 1989, Businessland stunned Wall Street with a $19.9 million loss in the first quarter, ended Sept. 30.

DON'T FORGET TO LIGHT THE OVEN, TURKEY

Cooks facing the task of preparing a holiday turkey for the first time are apt to feel a sense of crisis. But take heart, neophytes, help is only a toll-free phone call away. This year, the 44 home economists and nutritionists on the staff of the Butterball Turkey Talk-Line (800 323-4848) are celebrating their 10th straight year of dispensing stuffing recipes, thawing tips, and sundry turkey lore. Last year alone, the Talk-Line fo came to the aid of more than 20,000 chefs in distress.

They handle some pretty weird inquiries. Some of the cal seem alarmingly unprepared. One asked: "How do I turn the oven?" Others seem to need a brushup on anatomy, the caller who wanted to know if he should baste under turkey's armpit. And then there's the woman who roasted bird while it was still encased in its plastic wrapper. She sho probably just have gone out for dinner.

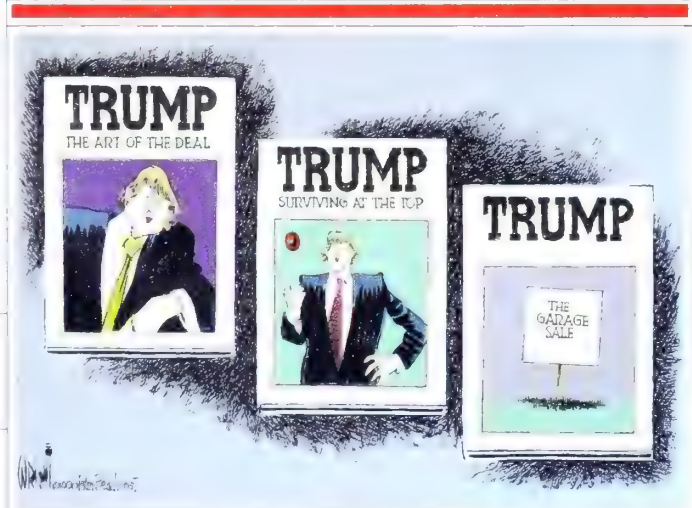
DAYS INNS: LIMPING UNDER ITS DEBT LOAD

▶ Another hotel company is in trouble. Atlanta-based Days Inns said on Nov. 12 that it has stopped making payments on $744 million in debt while it prepares a restructuring plan that it will present to bondholders in early Decemb

Privately held Days, the tion's third-largest ho chain, with 1,100 units, ins that it's posting strong o ating profits. But it s those earnings are be swallowed by interest p ments on junk debt inheri when Tollman-Hundley Ho of New York bought Days 1989 from Saul Steinber Reliance Group Holdin Days President John Sr grass predicts that institut al bondholders will accep plan to reduce the aver 14% rate of the debt stretch out repayment ter

SANTA BARBARA SAYS 'NO WAY' TO CHEVRO

▶ Officials in California's S ta Barbara County rejec Chevron's bid to get its gi Point Arguello project out mothballs. On Nov. 12, cou supervisors voted down Ch ron's proposal to use tank to haul oil from three shore platforms to its Los geles refinery. Calling the cision "unconscionabl Chevron says it will appea the California Coastal C mission. The board also ni an Energy Dept. compron that would have allowed mix of tankers and pipelin



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Service doesn't come much better than that.

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This system feature is known as Automatic Call Distribution and Northern Telecom is the leader.

However, if pizza isn't to your taste, perhaps you'd prefer a T-bone at the Bobcat.

In East New Mexico, homes and businesses, from the local diner to vast ranches, rely on our remote telephone switching systems.

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But no other personal computer comes close to matching the Macintosh record of stability, consistency, and innovation.

At $999,* the computer people actually use can be used by a lot more people.

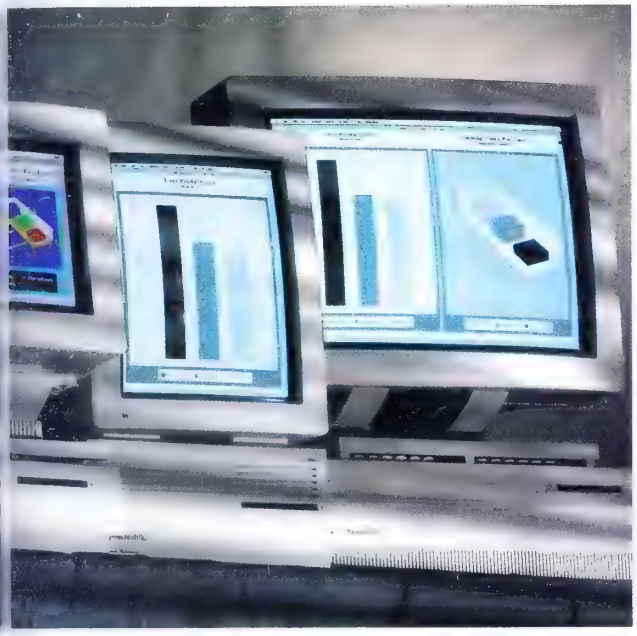
We're now introducing three new Macintosh personal computers. At prices that make powerful computer technology not only accessible, but affordable as well.

Together, they put much of the power and function of our most advanced computers into ou least expensive ones.

The Macintosh Classic.®

It has everything that makes a Macintosh a Macintosh. Built-in networking. A SuperDrive™ dis drive, which reads both Macintosh and MS-DOS files. And a $999* price that includes the built-in monitor, 1MB of RAM, keyboard, mouse, and syste software. The 40MB hard disk is optional. Its proce sor is an 8 MHz 68000 chip. And it outperforms even its popular predecessor, the Mac® SE.

rybody can one should you afford?



the Macintosh IIci, and the Macintosh IIfx. Have we left anybody out?

The Macintosh LC.

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Running a 20 MHz 68030 microprocessor, the Macintosh IIsi delivers serious number-crunching at the most attractive possible price.

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'HE NEW TEAM THAT A BATTERED BUSH MIGHT FIELD

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ound silly? It's no joking matter. With a recession loom- ing and his Presidency entering its roughest stretch, George Bush is in desperate need of White House rein- cements. Congressional Democrats have the President on run on the domestic front, thanks to ir deft maneuvering in the budget debate victories at the polls. Now, they're mov- on to foreign policy, suggesting that the ministration may be about to stumble o a war in the Persian Gulf.

To make matters worse, GOP pros have t confidence in the White House political eration. For now, at least, Bush seems to l that he needs Chief of Staff John H. nunu. But party leaders hope to surround staff chief with some fresh troops. ush has to get some people in place who do the heavy lifting," says Reagan ite House aide Thomas Griscom.

While Sununu gets high marks as a policy alyst, he has shown a tin ear for politics. 's also resistant to sharing power. GOP ls feel that the most glaring weak spots his staff are a political shop with slow reflexes, an ineffec- al congressional-relations team, and a dial-a-theme communi- ions office.

One Republican heavyweight who might be brought aboard a senior counselor is former Reagan Chief of Staff Kenneth Duberstein, a skilled schmoozer. Representative Bill Fren- (R-Minn.), who is retiring after 20 years, could also be ought in for a counselor's post. And pollster Robert M. eter, who is close to Secretary of State James A. Baker III, ght be enlisted as a full-time strategist.

SUNUNU MAY LOSE SOME POWER

The President also must decide what to do about Budget Director Richard G. Darman. The budget chief, who persuaded Bush to drop his no-tax pledge in exchange for what turned out to be a damaging budget deal, has become the Right's *bête noire*. "Dismissing Darman would be the symbolic break-point Bush needs to move forward," says one Reaganite. "If he doesn't ditch Darman, the guy who botched the last budget fight will be presiding over the next one."

Darman hopes to defend himself by convincing the President that he's the only White House official inventive enough to devise a compelling domestic agenda for the next two years. But Bush, who was reluctant to hire Darman in the first place, may decide that the budget-meister has worn out his welcome.

In addition, Bush is facing a spate of Cabinet openings. He needs replacements for Labor Secretary Elizabeth H. Dole and for drug czar William E. Bennett. Housing & Urban Development Secretary Jack F. Kemp is described by friends as "very depressed" over Bush's tax retreat and could depart. U. S. Trade Representative Carla A. Hills might be tapped to fill out the remainder of Californian Pete Wilson's Senate term. And Commerce Secretary Robert A. Mosbacher may be headed for a top job at Bush's reelection committee.

The departures would give the President an opportunity to shuck off his Beltway blinders and bring some much-needed new blood to his sagging Administration. But no one knows whether Bush feels the urgency for bold steps. "The President needs people who understand his philosophy and have a vision of what government should do," says Gary L. Bauer, a former White House domestic-policy adviser. If reinforcements don't come soon, Bauer fears that "from now until the next election, the White House will be on the defensive."

By Douglas Harbrecht

APITAL WRAPUP

IOPEFULS

t has been a long road back for Sen- ator Joseph R. Biden Jr., but the elaware Democrat may be gearing up or another White House run. Biden ropped out of the campaign after ad- itting he plagiarized a speech from a ritish politician. Then, he was side- ned for months by surgery for an neurysm. But 1990 has proved to be a offo year for Biden. He won high arks for his handling of Justice Da- id H. Souter's confirmation, and he hepherded a court-reform bill through ongress over the objections of the ederal judiciary. He capped the year ith a thumping reelection victory. Senate watchers think the healthy and energetic Biden may just go for it again.

Meanwhile, any Presidential ambitions harbored by Senator Lloyd Bentsen (D-Tex.) may be boosted by a Democratic National Committee campaign designed to position the party for 1992. The party's 1988 Vice-Presidential nominee will make a series of floor speeches blasting the Reagan-Bush era as a "decade of indulgence." And the DNC wants Bentsen to take his show on the road at a series of fund-raisers. "He's one of our national leaders," says DNC political director Paul Tully. "We're going to be hitting themes like this more thoroughly and directly."

THE SENATE

The Republican leadership will have a more right-wing cast when the Senate meets in January. Minority Leader Bob Dole of Kansas and Republican Whip Alan Simpson of Wyoming were unopposed on Nov. 13. But at lower levels of leadership, a conservative revolt toppled GOP conference head John Chafee of Rhode Island in favor of Thad Cochran of Mississippi. Don Nickles of Oklahoma beat Pete V. Domenici of New Mexico as chairman of the Republican policy committee. And Senator Phil Gramm of Texas will take over the Republican Senate campaign committee.

FIRED! NOW, EUROPE IS SINGING THE WHITE-COLLAR BLUES

As 1992 approaches, middle managers are an endangered species for the first time

CRADLE-TO-GRAVE JOB SECURITY IS A THING OF THE PAST, BUT THERE'S A PREMIUM ON A NEW BREED—THE EUROMANAGER

When he got the message that his boss wanted to see him earlier this year, the 46-year-old accountant for British Petroleum Co. figured a new job was in the works. What he didn't expect was that the new job wouldn't be with BP. To his amazement, the 25-year veteran was told that his $56,500-a-year position was being eliminated in a sweeping corporate reorganization. "It was a paternalistic company," he recalls. "I figured they could switch you to another department." Instead, when "the music stopped, I wasn't standing next to a chair." The accountant recently landed at a small engineering firm, earning $39,000.

Welcome to the cold, hard ranks of Fired in Europe. As companies prepare for competition in a post-1992 unified market that is now threatened with an oil shock and recession, the cherished notion of a lifetime white-collar job is fading fast. With layoffs in prospect from Britain to Italy, Europe is beginning to experience changes even more profound than those accompanying its last round of restructuring during the recession of the early 1980s.

TOP-HEAVY. This time, competitive pressures from the U.S. and Japan—and from within Europe itself—are primary catalysts. So is office automation, belatedly reaching European shores after washing over North America. If Europe fully meets the challenge and tightens its corporate belt another notch, it could become tough enough to withstand even these powerful forces. If not, the layoffs of 1990 could be the prelude to even more cutbacks later on.

Europe's latest retrenchments are hitting old-line manufacturers such as Michelin, Renault, and Hoechst and electronics giants including Groupe Bull and Philips. They are slashing blue-collar ranks with even more vigor than European manufacturers did a decade ag But that's not all. For the first tim manufacturers are also chopping aw at their top-heavy corps of $50,000-a-ye managers, sales executives, and en neers (table). The hot-growth service i dustries of the 1980s, from banking the media to airlines, are cutting profe sionals, too. For example, Belgium's S bena World Airlines plans to slice 3,0 jobs from its 11,800-person work forc It may also slash salaries 10%. Su news makes European middle manage suddenly seem as endangered as tho across the Atlantic. Warns Olive Chairman Carlo De Benedetti: "The ne restructuring is going to be felt mu more by the white collar than the blue

The delayering of European manag ment is different in some respects fr the firings of professionals that swe the U.S. for much of the past decad

's often slower, and it's hardly as uni-rm. But coming on top of a decade of ue-collar cutbacks, the current and ex-ected white-collar layoffs are weaken-g even further Europe's postwar social mpact that wrapped employees in rich nefits and job security.

Hardly a week goes by without an nouncement of cuts, like those at Bull, hich will pare 2,500 jobs in Europe, or ivetti, which is laying off 7,000 next ar on top of a total of 6,000 in 1989 d 1990. The newly combined Siemens-ixdorf Information Systems has al-ady squeezed out 3,500 employees, and formerly state-owned British Telecom-nications PLC, 5,000 employees may out the door by spring. "There's no ason we can't get the same productivi-improvements from managers as 've been demanding from the men in llow vans and the operators," says rry D. Romeril, BT's group finance ector.

SETTLING NEWS. The key event was tober's news that Holland's Philips is shing 45,000 employees—10% of them ite-collar workers—within a year. me observers think such moves are g overdue. "As we come up to 1992, I nk this is going to happen all over stern Europe," says Joop de Graaf of Federation of Philips Higher Em-yees. This new environment is put-g a premium on managers willing to oulder broad responsibilities and asting broad backgrounds covering ltiple countries.

That's unsettling news for the old-hool executive, who typically ght move from university to a job life. The help line at London's tional Advertising Benevolent So-ty rings constantly as those who nain in the British ad industry, ere employment has fallen by ut 10% this year, call to fret ut the future. In banking and ctronics, managers are pumping resumés: "People see the hand-iting on the wall," says Brussels-ed consultant Patrick Scallon.

The lifting of Europe's internal riers in 1992 is also putting stress a new breed of Euromanager. Al-dy, such food and drink compa-s as PepsiCo Inc. and H. J. Heinz are looking to cut costs by reor-nizing management along all-Eu-ean lines. And Bull is replacing ional managers for maintenance, es, and marketing with a single ropewide structure.

The spread of personal computers speeding the delayering of Europe companies such as BP turn to out-e consultants to collect and mas-ge data. And the merger and le-raged buyout wave of the 1980s is cing some companies to deeply slash staffs. France's Compagnie de Suez, for instance, faces wide-ranging retrenchments in manufacturing and finance after a dizzying three-year takeover spree.

You might expect continental Europe's powerful unions, which maintain a strong voice in company boardrooms in Germany, Belgium, and Holland, to try to brake the job-cutting. But white-collar unions, at least, seem resigned to slimmer staffs as the price of competing in the 1990s. That's especially true in Europe's hard-hit computer sector, where Philips, Bull, and other major players are only now responding to opportunities seized upon by such U. S. manufacturers as IBM, Compaq, and Apple. European computer sales are slowing dramatically. Local computer makers are still hobbled by highly paid sales staffs, while the competition has moved faster to cheaper independent dealers.

The Europeans also have been slow to bring bloated staffs in line with the lower profit margins from PCs and other hot-selling new products. That has made it harder for them to beat price cuts by aggressive U. S. competitors. Playing catch-up, Bull is now moving to accelerate its cost-cutting, compressing four years of reorganization into two, in order to save $690 million a year. After cutting 5,500 jobs over the past two years, it now plans to lose 5,000 more by the end of 1991, with at least 1,000 coming from European administrative ranks.

LEANER BANKS. Equally ripe for pruning is Europe's financial services industry. London's securities houses have been shrinking ever since the 1987 crash, with 5,700 employees already let go and thousands more to come. And France's brokers expect to fire 1,000 workers within months. U. S. banks, including Citicorp, Chase Manhattan, and Security Pacific, are sharply scaling back European staffs. So are European banks: Between Barclays and Midland Bank PLC alone, more than 8,000 branch jobs are being eliminated. And with personnel costs eating up 72% of the Italian banking industry's total costs, more than 10% of the country's 320,000 bank workers are likely to be laid off.

If anyone escapes the ax of corporate restructuring for a while, it will be the Germans. With the economy still expanding, skilled workers are in short supply at companies ranging from chemical maker Bayer to the former state monopolies of the East. But as promising as some opportunities may be, Germany is certain to see its own share of rising white-collar shakeups. Management consultant Jochen Kienbaum notes that managers comprise 25% of the work force at electronics maker Siemens, twice the level at Bayer and three times that of Volkswagen. Kienbaum also estimates that automation soon could force out as many as 8% of the nation's accountants and administrators.

If the management gurus within Europe's No. 1 exporter think that's the only way Germany will maintain its competitive advantage, then it will be hard for its European trading partners to do anything less. Much was made of Europe's campaign over the last decade to get its companies in shape. Now, it looks as if the job has just begun.

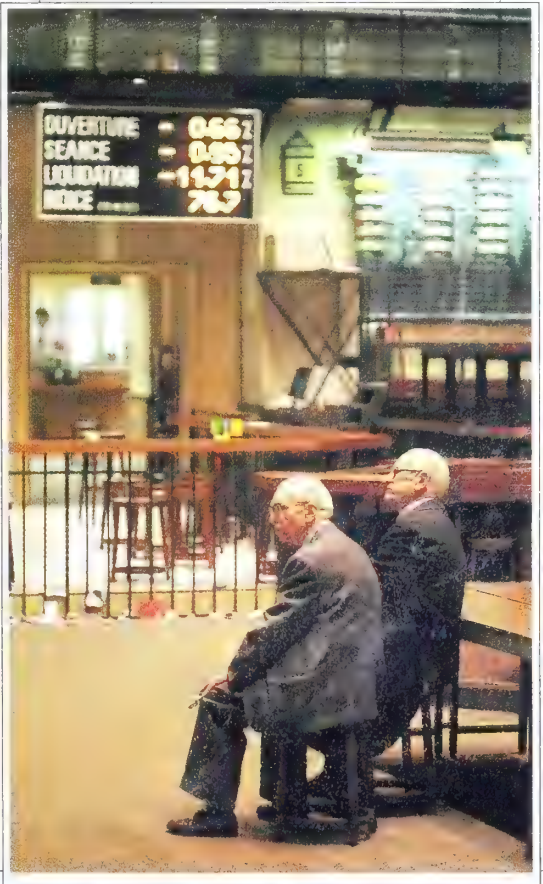
By Richard A. Melcher in London, with Jonathan B. Levine in Paris and bureau reports

HOW PAYCHECKS COMPARE

Median annual salary and bonus for middle managers

GERMANY	$94,285
JAPAN	$85,649
FRANCE	$66,881
U.S.	$56,505
BRITAIN	$49,542

DATA: HAY MANAGEMENT CONSULTANTS



THE PARIS BOURSE WILL BE SEEING MORE PINK SLIPS

SITTLER/LERRIAN

JAPAN

BRINGING LAND BACK TO EARTH

Tokyo aims to reduce real estate prices by as much as a third

Japanese land speculators fueled by cheap bank loans once made fortunes trading condos like baseball cards. In Tokyo's ritzy Ginza district, a patch of ground the size of a dollar bill went for $24,000. A claustrophobic 215-square-foot flat in Tokyo went for $770,000.

That was the go-go 1980s. Now, many Japanese are recognizing a dark side to the land boom, a message brought home by this year's 38% drop in the Tokyo stock market. There is a growing recognition that years of speculative excesses, when the prices of both land and financial assets spiraled out of sight, were bad for the economy's long-term health. The high prices have also barred an increasing number of young urban Japanese from homeownership, creating a gap between them and their elders.

URBAN FARMLAND: EXPENSIVE—AND PROTECTED

Now, the ruling Liberal Democratic Party, prodded by bureaucrats in the Finance Ministry, is finally ready to launch an assault on the land problem. This month, the LDP's tax policy committee will unveil a proposal likely to include a national landholding levy, stricter lending rules, and fewer tax breaks for farmland. Despite the howls of big landowners, Yoshiro Hayashi, vice-chairman of the committee, says he hopes to deflate the land-price bubble by 30% in the next couple of years. "We'll need courage," he says.

STEP BY STEP. Tampering with real estate prices involves big risks. Some fear that the whole real estate market could come tumbling down, taking banks and developers with it. But Japanese bureaucrats and politicians are confident that they can ease or at least put a lid on land prices without causing a crash. If they succeed, they might also score points with the Bush Administration, which deems pricey real estate a barrier to U. S. companies entering Japan.

The soaring land prices played a key role in the Tokyo stock market boom. Speculators used inflated real estate as collateral to buy stocks. They also bid up the share prices of companies with large holdings of undeveloped land, enabling those corporations to raise new capital cheaply.

When it comes to passing legislation to dampen land prices, the LDP is likely to take a cautious, step-by-step approach to enacting its committee's proposals. The party will strive to avoid irritating the 62% of Japanese citizens who do own land. A sudden drop in real estate prices could further damage the stock market and shake consumer confidence. "The government is not ready to take a drastic course," predicts Teizo Taya, chief economist at Daiwa Institute of Researc

A modest first crack at the land pr lem—probably a nationwide landholdi tax—will likely be pushed through t Diet by the beginning of the new fisc year on Apr. 1 but may not take effe until later. It could hit landowners ha A 1% tax, the maximum under consid ation, would cost giant Nippon Te graph & Telephone Corp. $310 milli per year, says NTT President Masas Kojima, adding: "This would be ve painful for us."

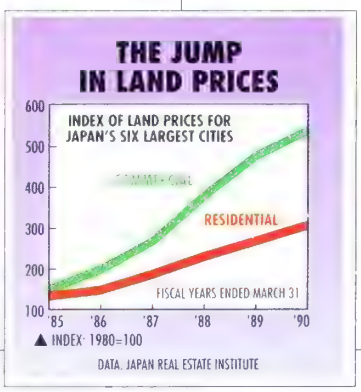
Other small steps to check speculati have already been taken. Last sprin the Finance Ministry told the banks rein in real estate lending, and the Ba of Japan is now pushing short-ter rates well above 7%, largely to chill sp ulation. To help cool things off, Prim Minister Toshiki Kaifu earlier this ye threatened to call for a freeze on so land prices.

BANKS AT RISK. Although land pric continue to soar in most cities (char they have leveled off in Tokyo. G memberships, hotly traded in a secon ary market and seen as a barometer land values, have slipped as much 40% in some areas from peaks toppi $500,000. Since last summer, the avera price of a Tokyo condo has dropp $70,000. "There are bubbles alrea bursting," but they will be limited areas where speculation was fierce says Bernard Siman, an analyst for Ja dine Fleming Securities Ltd. in Tokyo

Even those who expect a broader s back think the economy, which is st chugging along at 4%, could afford a fl in land values in the 30% to 40% rang While the big banks are deemed sa some of the smaller ones, called *shi kin*, are heavily invested in real esta and might fail in the event of such drop. Regional banks could also g squeezed. Several have 50% or more their loans backed by real estate. "Son of the more inefficient banks may ha to go," shrugs Akio Mikuni, president bond-rater Mikuni & Co.

But a sharp drop seems unlikely. T Japanese have yet to deal with oth factors that drive up land prices. The are still zoning laws that encoura farming in the mid of major cities and p nitive capital-gains t rates up to 96% th discourage sales of la for development. B given the power landholding interes the government m have to settle for a l eling in prices.

By Karen Lou Miller in Tokyo



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CANADA

NORTHERN TELECOM TAKES A BIG, BUT CAREFUL, STEP

The STC deal looks good—and it's a lot cheaper than it looks

When Paul G. Stern was between jobs a couple of years ago, he wrote a book for corporate ladder-climbers called *Straight to the Top*. It said: "Take actions and explain them afterward." On Nov. 8, he did just that. The chairman of Northern Telecom Ltd. announced the biggest deal in his company's history, an agreement to buy control of British telecommunications equipment maker STC PLC for $2.8 billion. Then he explained it: STC, he said, will give Canada's Northern Telecom a European beachhead and edge it closer to its goal of becoming the world's No. 1 maker of telecommunications equipment.

Northern's offer for the part of STC that it didn't already own reflects the precise manner of its 52-year-old boss. Stern is plotting the rise of the company as methodically as he plotted his own rise through the ranks of Du Pont, IBM, Braun, and Unisys, which he left as president in 1988 after a dispute with then-chairman W. Michael Blumenthal.

CEO STERN: "THE MORE DEMANDING YOU ARE, THE MORE RESPECT YOU GET"

SKITTISHNESS. The STC deal won't be all that expensive for Northern. The purchase price will, in effect, be reduced by nearly half. That's the amount Northern can recoup from STC, which will have nearly $1.4 billion in cash at the end of November when it completes the sale of 80% of its International Computers Ltd. to Japan's Fujitsu Ltd. Northern could reduce its outlay further by selling the distribution businesses of STC, worth at least $350 million. Moreover, since Northern already owns 27.1% of STC, it was the obvious acquirer. "They either had to buy the whole company or walk away," says Adam Quinton, electronics analyst at UBS Phillips & Drew Ltd. in London. In spite of investor skittishness about big takeovers, the stock of Northern, which is 53%-owned by BCE Inc., parent of Bell Canada, ended the week down just 1½ at 25¼.

Northern Telecom had come a long way before Stern's arrival, invading the U. S. market in the early 1980s and emerging as a leading manufacturer of digital switches for local phone companies and corporations. But it was bloated. When Stern arrived almost two years ago, he cut 2,500 jobs, closed four of 47 plants, and sold another plant to employees. Stern, who has a doctorate in physics, brought more discipline to the company's research and development. He also continued the overseas expansion begun by his predecessor, Edmund B. Fitzgerald, and accelerated a push into fiber-optic transmission gear.

Investors like the formula: Northern's stock is up 80% since Stern was tapped for CEO in early 1989. The attitude among top managers seems positive as well. The company has lo wanted to go global, but Stern's "con bution was to examine the premise a set us on strategies that will get there," says Donald K. Peterson, gro vice-president for Northern's Merid Business Systems in Richardson, Tex

The ambitious premise is that Nor ern can nearly quintuple in size, to $30 billion in revenue by the year 20 That would give it perhaps 10% of t world market—and, possibly, the N spot. The STC purchase puts North fourth in the world rankings, close hind Siemens, and trailing AT&T and Alcatel (table).

Some Northern employees have be taken aback by Ster unsentimental view the corporate world. sample from his *Strai to the Top* says: "Com ny loyalty is, in m cases, a charade, a te of convenience, a vehi for holding people to t company."

UNFAZED. But Stern's hortations to individu achievement only go far. He will need a lot team spirit if North Telecom is ever to le the industry. Much of growth in the 1980s ca at the expense of AT& which lagged in digi technology. That h since been corrected, a now the U. S.-Canadi Free Trade Agreement opening up Northern home market to serio competition from AT& Northern is behind in t booming wireless comm nications market. While has a foothold in Japa it's small in Europe: The purchase of S will help it mainly in Britain, not on t Continent.

Stern isn't fazed by all that. He's c fident that exacting standards and de such as the STC purchase will t Northern as far as wants to go. In his bo he advises ambitious m agers that employees l challenges: "The more manding you are, t more respect you ge From the sound of Northern Telecom's 50,0 employees are in for a manding decade.

By Peter Coy in N York, with Mark Marem in London

THE GLOBAL GIANTS

1989 phone equipment sales
Billions of dollars

AT&T	$14.4
ALCATEL	14.1
SIEMENS	6.6
NORTHERN TELECOM	6.1
ERICSSON	5.7
NEC	5.5

DATA: NORTHERN BUSINESS INFORMATION

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EDITED BY JOHN PEARSC

IS THE SUN ABOUT TO SET ON MAGGIE THATCHER?

After a near-record 11 years as Prime Minister, Margaret Thatcher may be nearing the end of her combative campaigns to change British society, which she has succeeded in doing, and to head off European monetary and political union, which she may only have delayed.

Former Defense Secretary Michael Heseltine announced on Nov. 14 that he will challenge Thatcher for the Conservative Party leadership, tapping currents of growing opposition in the party to her anti-European stance. That issue will come to a head at a Dec. 13-14 meeting of European Community leaders in Rome to lay the groundwork for a European central bank and a single currency as well as early steps toward political union. Five years ago, a showdown over European ties led to Heseltine's resignation as Defense Minister when he urged giving preference to Europeans over Americans in bidding to rescue a failing helicopter maker.

HESELTINE: FORCING A VOTE ON TORY LEADERSHIP

The European issue, however, is only a flashpoint for deeper discontent over Britain's recession and 11% inflation, as well as Thatcher's laissez-faire social policies and her abrasive style. Heseltine, 57, a self-made publishing millionaire, calls himself a "caring capitalist." He would scrap the unpopular "poll tax," a levy introduced by Thatcher last April that hits the poor as hard as the rich. He is also in favor of more government cooperation with business and unions, including more funding for regional aid and job training.

TOO SMOOTH? The odds are against Heseltine toppling Thatcher in a secret-ballot vote of Tory members of Parliament on Nov. 20. But if Thatcher fails to win a sufficient majority, she might be persuaded to step down for the sake of party unity. Under the parliamentary system, the new party leader would become Prime Minister—either Heseltine or a compromise candidate such as Foreign Secretary Douglas Hurd. Even if she prevails, the battle could irreparably wound her.

Heseltine argues that Thatcher must be replaced to save the Conservative Party. An election has to be held by mid-199 and the Labor Party is currently leading by about 16 points opinion polls. Heseltine would have a better chance tha Thatcher, he says, to "prevent the ultimate calamity of Labor government." Although Heseltine stirs fewer party di sions than the strong-willed Thatcher, some Tories, like son Continental Europeans, find him too smooth, even bland. At recent conference, he was "very superficial on European a security matters," says Angelika Volle, an expert on Britain the German Foreign Policy Society in Bon "Populism is one thing, expertise is another."

Whatever the outcome of the party vote, Tha cherism appears to be in its dying throes as t Tories move toward the political center. T Prime Minister's arms-length approach to E rope also looks doomed. Heseltine and many s nior Tories argue that Britain should formal agree on the broad outlines of Europe's ne moves toward unity and bargain over the deta later.

It was precisely Thatcher's hostility towa Europe that sparked the leadership crisis. Dep ty Prime Minister Sir Geoffrey Howe q abruptly in early November and, in a stingi personal attack on Nov. 13, derided Thatche "nightmare image" of Europe. "Coming fr one of the most loyal servants of the Conserv tive Party, it was a devastating indictment," sa Sir Dennis Walters, a Conservative Member of Parliament.

Thatcher's still-numerous adherents argue that the par should stand by her. "I hope that the greatest peacetir Prime Minister in this century is not toppled in a gasp theatrical hysteria," says MP Jonathan Aitken. Wrapping the selves in the Union Jack, backers even argue that the count can't afford a change while the Persian Gulf crisis simme But after 11 years, Thatcher has alienated so many supporte that her own party could throw her out.

By Mark Maremont and Richard A. Melcher in Lond

GLOBAL WRAPUP

YUGOSLAVIA

Six months ago, Yugoslavia seemed poised to pull itself together despite deep ethnic divisions. Federal Prime Minister Ante Marković had managed to lower inflation from 2,500% annually to near zero, and he made his currency convertible by pegging it to the German mark. Even chronic nationalist strife among the country's six republics seemed to be subsiding.

But executives say Marković bungled by overvaluing the dinar-mark ratio at 7 to 1, forcing up prices of exports and slowing the economy. Even so, inflation is bouncing back to 100%.

Meanwhile, nationalist bloodshed is spreading as Serbs, Croats, and others vie for power. Serbs, the biggest group, are killing ethnic Albanians in southern Kosovo province. But in Croatia, the Serbian minority has turned the city of Knin into a fortress. Their backers in Serbia are shipping arms through the republic of Bosnia, which separates Serbia from Croatia.

A turning point may come on Nov. 18, when Bosnia holds elections. Some analysts believe the strife can only be controlled if Bosnians elect a Catholic-Muslim coalition and make the republic a buffer state. Whether Marković can regain control is now his nation's most important question.

MEXICO

President Salinas hopes to lower in flation, now at 28%, to single dig its by the time he signs a free-trad pact with the U. S. But his latest ant inflation deal with business and labo risks overvaluing the peso by slowin its fall against the dollar to only 5 yearly, even though Mexico's inflatio rate tops that of the U. S. by over 20%

Salinas is counting on capital inflow to strengthen the peso. The resu would be to draw in imports and hol down prices, though exports will su fer. But Salinas knows that voters i next year's congressional elections wi care less about exports than prices.

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Commentary/by Brian Bremner

PEOPLE WHO LIVE IN GLASS STADIUMS . . .

To the delight of the people of Arizona, the National Football League last year chose the Phoenix suburb of Tempe as host for Super Bowl XXVII in 1993. On one condition: Arizona had to put aside years of political squabbling and honor Martin Luther King Jr. with a state holiday. But on Nov. 6, voters narrowly defeated a referendum that would have established a King holiday. NFL Commissioner Paul Tagliabue quickly urged club owners to yank the game right out of Arizona.

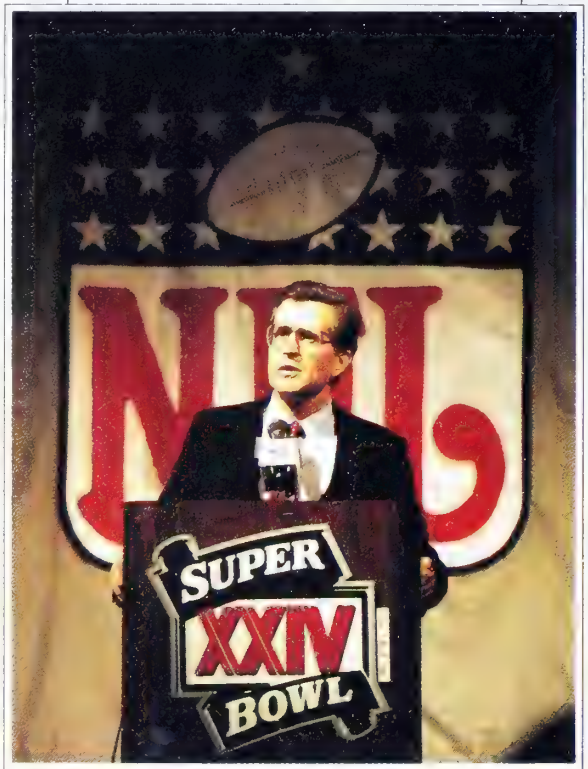
The vote could cost Arizona dearly. Besides kicking away some $200 million in Super Bowl-related revenues, Tempe may also lose the Sunkist Fiesta Bowl, one of the major New Year's Day college bowl games. Fiesta Bowl officials have contacted the National Collegiate Athletic Assn. about moving the game to another city. Also, Major League Baseball plans to review whether the vote should affect Phoenix's bid to land an expansion club in 1993, and the Seattle Mariners will reconsider whether to hold its spring training next year in Tempe.

SAFE PUNT. On moral grounds, the NFL certainly made the right call, and it's winning lots of praise. But the decision was motivated as much by self-interest as by principle. The NFL, after all, is a billion-dollar-plus annual private enterprise that's extraordinarily image-conscious. By holding its most visible contest in Tempe, the NFL would have invited the same kind of controversy that swirled around this summer's Professional Golf Assn. championship tournament at Shoal Creek Golf Club near Birmingham, Ala. Sponsors fled when it became clear the club didn't exactly welcome minority members.

The NFL owners have another compelling reason to give Phoenix the boot: the league's players. About 56% of NFL players are black. Ignoring the King issue would hardly have helped the league's tattered labor relations. The NFL Players Assn. has been at odds with the owners over free agency, drug testing, and other issues since the 1987 strike, and the league didn't want to pour gasoline on an already combustible mix.

The NFL has spared itself a great deal of trouble and embarrassment. But just how deep, really, is its commitment to the principles for which King stood?

Well, the league has its share of executives and players who admire King's civil rights legacy and wonder if the good folks in Arizona may be getting a bit too much sun. "The fact is that 47 other states do have a King holiday," says Philadelphia Eagles owner Norman Braman, head of the NFL's bowl site selection committee.



THE NFL'S TAGLIABUE: SWIFT RETRIBUTION FOR ARIZONA

But if the NFL owners seriously want to champion King's dream, there's plenty of work to do right in the league's own backyard. With all due respect to Los Angeles Rams owner Georgia Frontiere, the upper echelons of the NFL are mighty male and pale. None of the chief operating officers or general managers of the NFL's 28 teams is black. And there's only one black head coach, Art Shell of the Los Angeles Raiders. "The owners still have a long way to go," says Dick Berthelsen, the attorney for the NFL Players Assn.

NO EASY JOB. True, the league's hiring record at lower levels isn't bad. Out of 306 assistant coaches around the league, 51 are black, and overall, 15% of the league's nonplayer jobs are filled by minorities. Still, in hurling stones at the voters of Arizona, the NFL is asking for a retaliatory strike at its own glass house. It needs to do a better job of placing minorities in top positions of genuine responsibility.

Also, the NFL may soon find that playing civil rights watchdog isn't such an easy job. What city isn't guilty of some form of racism, however subtle? For instance, San Diego Mayor Maureen O'Connor shot off a letter to Tagliabue soon after the Arizona vote, offering up her city as an alternate site for Super Bowl XXVII. San Diego, however, can hardly be counted as one of King's warmest civic supporters. In 1987, the city renamed its popular Market Street after King, then reversed course after voters turned down the idea. In the end, a 10-mile stretch of California Highway 94 was dedicated to King's memory.

Arizonans may well wonder why Pete Rozelle, Tagliabue's predecessor, didn't squawk in 1988 when Cardinals owner Bill Bidwell moved his franchise from St. Louis to Phoenix, even though former-governor Evan Mecham had rescinded a King holiday created back in 1986. And how's this for a head-scratcher: It's O. K. to have a franchise in the state but *verboten* to play the championship game there.

Phoenix, for one, isn't about to give up Super Bowl 1993 without a fight. The city still hopes to keep the game by persuading the Arizona legislature—a long shot—to take another run at approving a King holiday. Perhaps the NFL's economic clout will prevail in the end. For now, though, it might want to run through an instant replay of its own record.

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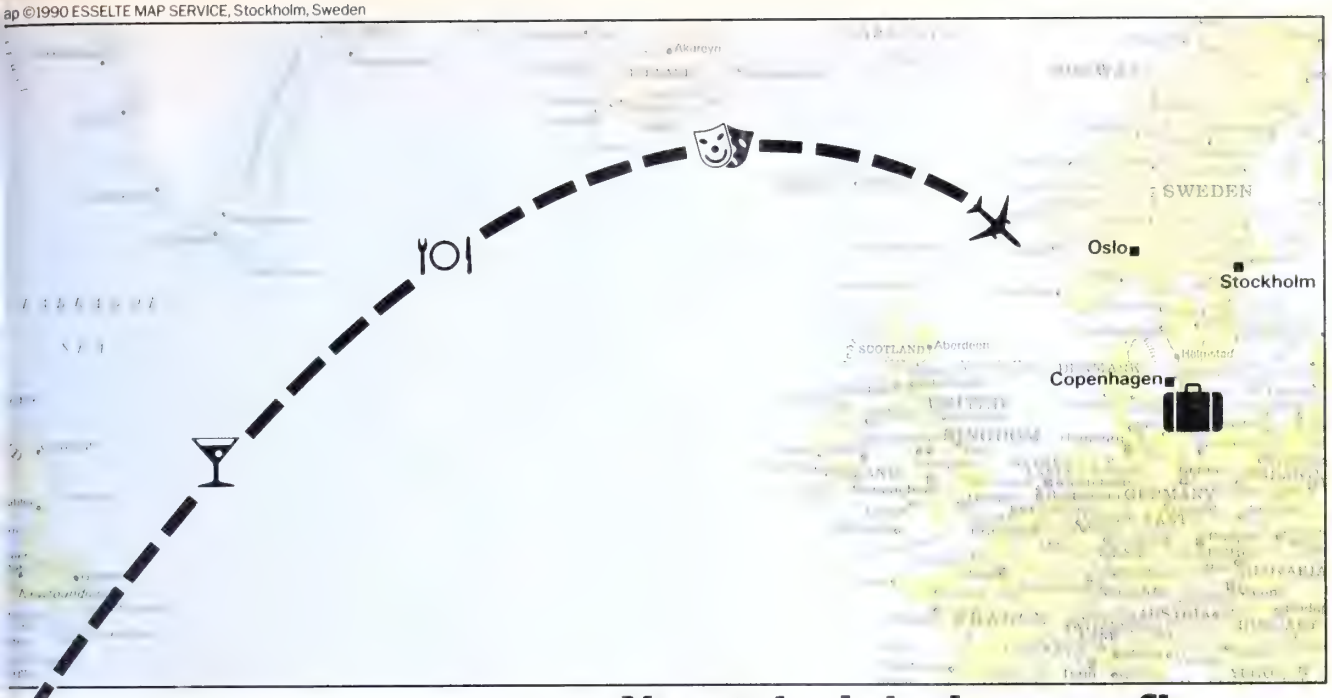

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A SUBURBAN SCHOOL: ISSUES SUCH AS DAY CARE, PARENTAL LEAVE, AND INCREASED FUNDING FOR EDUCATION MAY WIN VOTES FOR DEMOCRATS

THE BATTLE OF THE 'BURBS: REDRAWING THE POLITICAL MAP

As the traditionally Republican suburbs eclipse the cities, the Democrats are trying to muscle in

It's an autumn Sunday afternoon. Sunlight filters through the branches of trees that line the rows of neat, three-bedroom houses. The kids are tossing a football in the front yard. Dad is raking the last leaves from the lawn, while Mom plants bulbs in the garden. The scene seems the world's least likely battleground. But this typical American family is the prize in the biggest political struggle of the 1990s: the Battle for the 'Burbs.

New census data show that more than half of all Americans now live in suburbs, up from just 23% in 1950 and 43.8% in 1980. That demographic shift will have profound political consequences. In the reapportionment of 1991, cities will lose power both in Congress and state legislatures. And as momentum builds toward the next Presidential election, Republicans and Democrats alike must scramble to develop a message that will play in the vote-rich suburbs.

Traditionally, the GOP has had an edge in suburbia. To the country-club set, Republicans beamed a message of economic growth through low taxes and business deregulation. To burgeoning middle-class communities, Republicans offered a combination of hostility to liberal income-redistribution programs, devotion to family values, and old-fashioned patriotism.

'UP FOR GRABS.' The party also played skillfully on racial and economic anxieties by opposing hiring quotas and disparaging the welfare system. Republican gains in the suburbs are one reason the GOP has won five of the last six Presidential elections (charts).

But as the 'burbs become increasingly diverse, it could get harder to read the minds of voters in Anyto U. S. A. The baby boomers flooding tend to be wealthier and better edua ed than their rural or urban brethe They are also more independent-mi ed, holding only the loosest party loa ties. "The suburbs are up for gra says Lee M. Miringoff, director of t Marist Institute for Public Opinio Poughkeepsie, N. Y. "The political trepreneur of either party has more portunity because the marketplac wide open."

Indeed, Democrats already sense opening in the GOP's suburban bulw With the economy heading into a slu that has clobbered real estate va and hit service industries particul hard, suburban voters are losing co dence in Republican economic man ment. Democrats have begun to the middle class with issues such

ental leave, child care, and increased ding for education. And Republican tility to abortion rights has given Democrats an opportunity to win -choice women away from the GOP. he stakes are enormous. In the buzz r the upcoming redrawing of con- ssional districts, most attention has used on the shift of 19 seats from Northeast and Midwest to the Sun- . But the transfer of power within tes is at least as important, because ill increase the suburbs' clout at the ense of decaying inner cities. The cities of the Northeast and Midwest each lose at least one seat in Con- ss as the lines are redrawn. "In the islative tugs-of-war, the suburbs are rly winning," says Thomas E. Cav- ugh, director of the Center for the dy of American Government at ns Hopkins University.

he cities, already reeling from the S crisis, the drug epidemic, and nelessness, will suffer an additional w, an ironic result of a law designed enfranchise minorities. The Voting hts Act, as rewritten in 1986, re- res the creation of majority black or panic districts wherever possible. s will bar many state legislatures n creating combined city-suburban ricts, thereby reducing the number House members who represent cities ge 84).

LOW SHELLS. Redistricting is also ly to hasten the estrangement be- en cities and suburbs. For decades, an planners believed that a metro- tan area's economic health depended the vitality of the urban core. But ay, the suburb is no longer sub to urb. Outlying communities, with ir megamalls and office parks, are oming economically self-sufficient. ny suburban residents rarely ven- e into the city, either to work or to y.

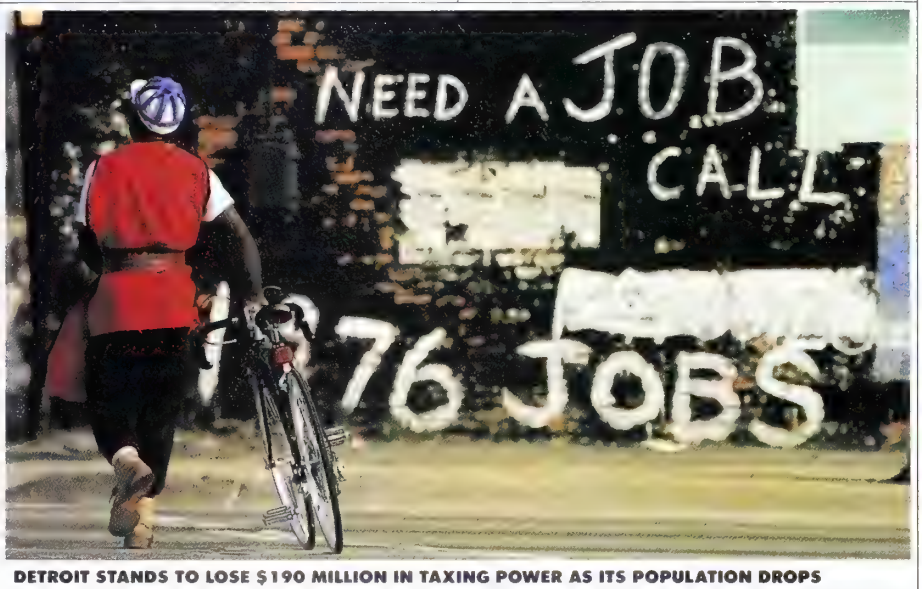
he flight of jobs to the suburbs is ning some of America's proudest cit- into hollow shells. Over the past 20 rs, employment in most cities has n stagnant or falling. Meanwhile, growth has exploded in the suburbs, major corporations k lower commercial ts and better living ditions for their em- yees. In Chicago, for mple, economist mas M. Stanback of umbia University nd that employment w at an average an- l rate of just 0.4% m 1969 to 1987, ile employment in city's suburbs rose a year. "The city become superflu- ous to the mass of suburban residents," says John D. Kasarda, professor of business administration and sociology at the University of North Carolina.

On the whole, these demographic trends have benefited the Republicans, especially in Presidential contests. "The pattern has been that the cities are losing voters and becoming more Democratic, while the suburbs are gaining and staying Republican," says political analyst William Schneider of the American Enterprise Institute. The key to Democratic victory in most industrial states used to be a massive urban get-out-the-vote drive, backed by the local machine and labor unions. The candidate rolled out of the city with a big enough margin to offset the Republican majority in the rest of the state.

Now the machines have crumbled, unions' power is dissipating, and residents of the shrunken cities—increasingly nonwhite, poor, and alienated—don't vote. "The central cities are just not as important anymore," says Republican demographic consultant John A. Morgan. "John Kennedy got 320,000 votes in Philadelphia. Now he would be lucky to get 200,000."

California, where everything seems to happen first, is a textbook example of the electoral new math. The fast-growing counties outside of Los Angeles, such as Riverside and San Bernardino, have tipped the partisan balance of power in Southern California. According to Schneider, Los Angeles County, which includes the city and nearby suburbs, provided only 30% of the state's vote in the 1980s, down from 40% in the 1950s.

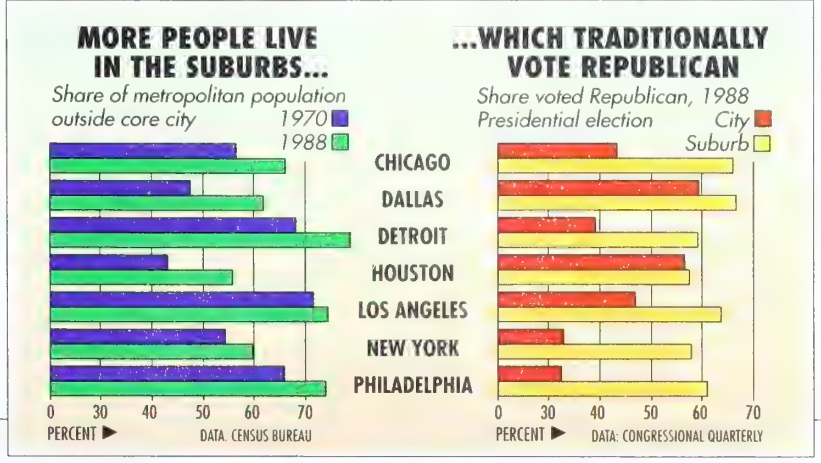
About two-thirds of the voters in San Diego County and the outlying counties of metropolitan Los Angeles voted Republican in recent Presidential elections. They gave the GOP nominee an average 1.7 million votes in 1982, 1986, and 1990. Democrats in Los Angeles County garnered just 1.1 million votes. That's why the Democrats' traditional strategy of relying on big Los Angeles County pluralities to carry their candidates to statewide victory is no longer working.

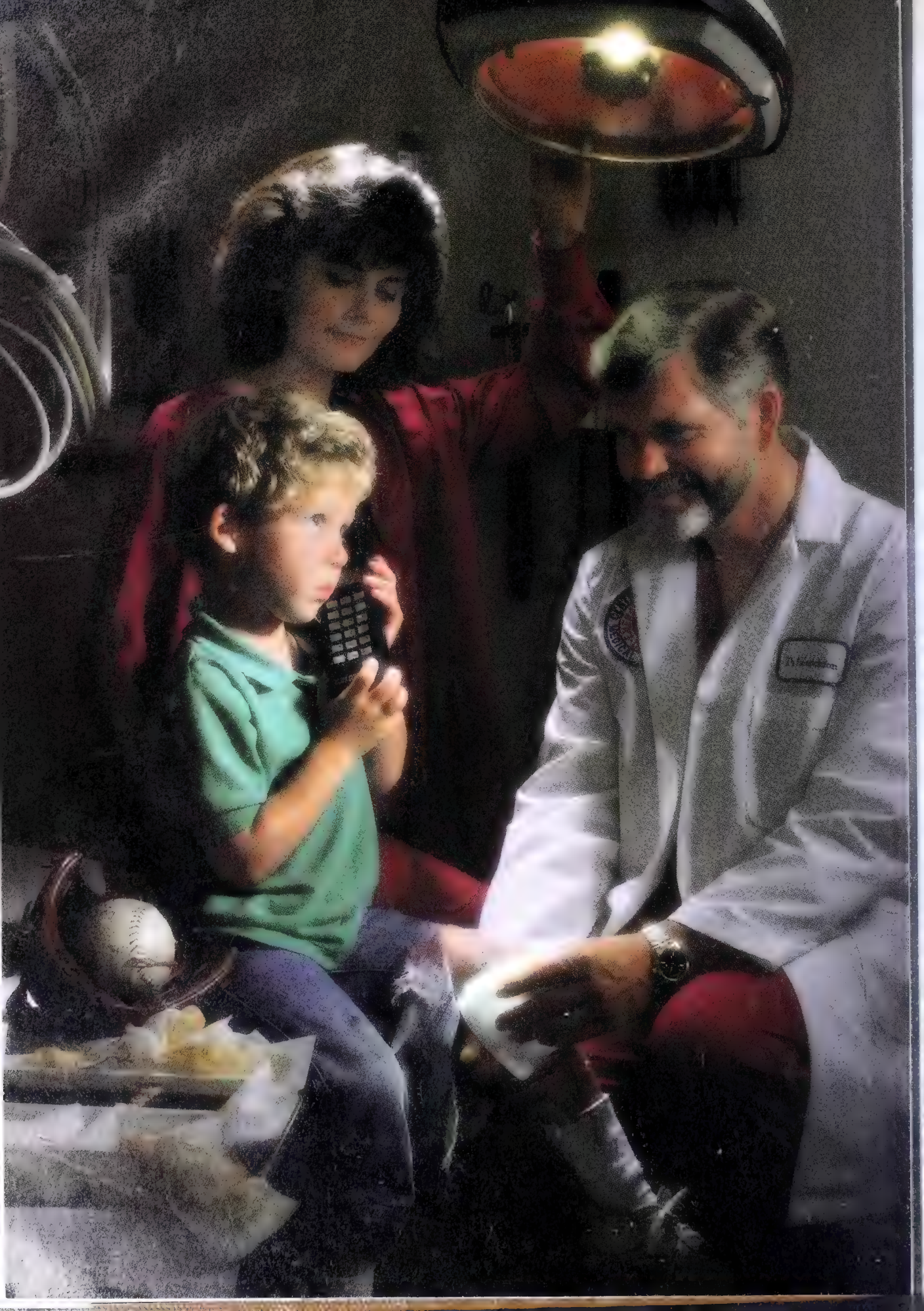


DETROIT STANDS TO LOSE $190 MILLION IN TAXING POWER AS ITS POPULATION DROPS

'PERSUADABLES.' Nevertheless, the GOP's hold on the 'burbs isn't a lock. Suburban dwellers revel in their reputation for political independence. In the New York area, for example, nearly 19% of suburbanites registered as independents in 1984, compared with 10% in 1956. "We think of suburbia as the land of the persuadables and ticket-splitters," says Paul Tully, political director of the Democratic National Committee.

Take Michael Deines, a persuadable from Park Ridge, Ill., an upper-middle-class town of 38,000, 15 miles from downtown Chicago. Deines, 42, an English teacher at Maine South High School and a fa-





HOW FUJITSU HELPS A BIG HOSPITAL STAY SMALL.

Saint Cloud Hospital in central Minnesota is a regional medical center serving a population of more than 425,000 in a ten-county area covering more than 7,500 square miles. It's a highly progressive, rapidly expanding institution with hundreds of doctors, comprehensive services, and an attitude of intense human concern. Patients are never numbers, they're people. And they are treated like people. For all its size, Saint Cloud Hospital still feels 'small'.

CARING INTIMACY

The hospital has worked very hard to ensure an environment of caring intimacy, developing many special programs and procedures and investing heavily in technologies that free its people to focus on people.

One current investment is in hundreds of portable and mobile cellular telephones to give the hospital instant two-way communications with its on-call staff. The phones have put doctors and nurses in touch as never before, and have begun to find a wide range of unexpected uses for themselves —like letting emergency room patients reassure loved ones directly from a moving hospital gurney.

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Gary Gibson of Fujitsu talks with Bill Becker of Saint Cloud Hospital and Joe Salaski of United States Cellular Mobile Telephone Network. United States Cellular, a nationwide carrier which operates the cellular network in St. Cloud, Minnesota, strongly recommends Fujitsu phones. For information call Fujitsu at (214) 690-6000.

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ther of two, says his community is beginning to lose its Republican tilt as more younger professionals move in. Deines normally leans Democratic but voted Republican in November, helping to elect Jim Edgar governor over a Democrat who forswore tax increases. Deines says he liked Edgar's support of an income-tax surcharge that helps pay for education. "I vote for the individual," says Deines. "Party labels are getting blurred more and more."

The close attention suburbanites such as Deines pay to political issues helps explain their erratic voting patterns. In Michigan, the suburbs helped return liberal Democrat Carl M. Levin to the Senate for a third term. Macomb and Oakland Counties, which comprise most of suburban Detroit, supported Levin over conservative Representative Bi Schuette by 57% to 42%. But whe came to choosing a governor, te same voters were attracted to Repbl can John Engler's promise to lo property taxes. They gave Engler 5 while incumbent James J. Blanch garnered only 46%.

When Democrats dream of brea the GOP hold on the suburbs, they t

SUDDENLY, THE GOP JUST LOVES MINORITY DISTRICTS

In 1981, then-state Senator Julian Bond of Georgia hoped to carve out a new black congressional district in Atlanta. He took his plan to the Democratic chairman of the Georgia House Reapportionment Committee. According to court documents, the chairman's response was: "I don't want to draw nigger districts." With nowhere else to turn, Bond appealed to Georgia Republicans who helped him create the district that today is held by Democratic Representative John R. Lewis, a civil rights activist.

Redistricting, the once-a-decade process in which state legislators redraw the electoral map, has always been ugly. But next year's process features a new element that will strain the alliance between blacks and the Democrats.

'PREPARED.' Changes in the Voting Rights Act and recent Supreme Court decisions will force state lawmakers to preserve existing minority districts and, where possible, create new ones. To help carve out new black and Hispanic districts, Republicans are offering minorities free computer time, software, and legal advice.

The GOP isn't acting out of altruism. About 80 white Democratic incumbents have districts that are 30% black now. As new minority districts are created, such incumbents will lose their reliable voting blocs. So the Democrats will need to reach deeper into the suburbs to make up for the population loss. The result: Some white Democratic incumbents could lose their districts altogether as they compete for votes in GOP territory. "It's a very sensitive issue for Democrats," says Laughlin McDonald, head of the American Civil Liberties Union's Southern Regional Office.

In the past, blacks and Hispanics were usually the losers when political lines were redrawn. But this time, says Dennis C. Hayes, general counsel of the National Association for the Advancement of Colored People, "we are prepared. We know better how the political games are played."

The GOP sees a big window of opportunity. In an effort costing the Republicans some $500,000, Benjamin L. Ginsberg, chief counsel of the Republican National Committee, is working with civil rights groups all over the country, promising them technical assistance to help fight proposed districts that dilute their strength. A nonpartisan group called Fairness for the 90s is distributing the RNC software. Voting rights groups, including the Southwest Voter Research Institute in San Antonio, the Mexican-American Legal Defense & Education Fund in Los Angeles, and the Southern Regional Council in Atlanta, have accepted the help.

National Democratic officials are enraged by what they see as civil rights groups' perfidy. Says Kathy Meek, director of the congressional Democrats' redistricting project: "Democrats aren't interested in packing minorit into districts but in winning more se that will help minorities overall."

Some of the worst conflict will be Michigan, which loses two congress nal seats. Detroit's dramatic populat drop has left its two black congress nal districts well short of the 575,0 people they need to exist. But wh the voting lines are redrawn, the la requires that the drafters protect districts of Democratic Representati John Conyers Jr. and the just-elec Barbara Rose Collins. Both are bla

This forces su white Democratic s warts as Represen tives John D. Ding William D. Ford, a Sander M. Levin to gr up their chunks of D troit—and increas their vulnerability 1992. Similar conflic will arise in Chica Cleveland, Philadelph and New York.

SAME GAME. The stru gles will be no less b ter in states that ga seats. In Texas, a bla district is sure to b created in Dallas-Fo Worth. But Democra will control the sta house and both houses of the legis ture. Republican Representative Joe Barton, just elected to his third ter fears his suburban district will be g ted to protect white Democratic incu bents. "The Democrats hold all t aces," Barton admits.

Democrats will howl that the GOP exploiting the law for partisan adva tage. But for years, Democratic incu bents played a variation on the sa game, using minority voters as a pa insurance policy. Increasingly, blac and Hispanics are willing to take th chances with anyone promising them bigger voice in government.

By Paula Dwyer in Washingt

BARTON: GERRYMANDERING DEMOCRATS MAY RAID HIS TEXAS TERRITORY

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of people such as Park Ridge teacher Deines. The lure is the Democratic Party's position on social issues, from abortion to the environment to child care, and its newfound claim as the defender of an economically squeezed middle class. "The suburbs are an interesting combination of economic conservatism and social liberalism," says Democratic pollster Geoff Garin.

The Democrats are targeting these voters with a vengeance, using sophisticated marketing techniques. By studying precinct voting patterns, party officials can tell where open-minded, Democratic-leaning voters live. Candidates visit these areas often, and residents in the persuadable neighborhoods are bombarded with creatively designed, issue-oriented mail. For instance, the party helped Democrat Rosa DeLauro win an open congressional seat in Connecticut by deluging working-family neighborhoods in New Haven with mailings on parental leave legislation.

POOR FIT. Many Democrats view last year's Virginia gubernatorial election as the model for suburban fights of the future. Democrat L. Douglas Wilder became the nation's first elected black governor by stressing his pro-choice views on abortion and his fiscal conservatism. Wilder's margin of victory was widened by Washington's booming northern Virginia suburbs. The Democrat's promise not to raise taxes, which he has kept despite a deepening state budget crisis, proved particularly potent in an area where soaring home values had pushed real estate taxes sky-high.

Some classic Republican positions simply don't fit the realities of suburban life anymore. The GOP's traditional support for untrammeled property rights can backfire in communities where voters are determined to fight overdevelopment. Similarly, the Republicans' official economic optimism can crumble in the face of clogged highways, overcrowded schools, and inadequate public transportation. In focus groups conducted outside Chicago and Philadelphia, Democratic strategist William A. Galston found that suburbanites are increasingly nervous about America's economic future. "They believe that education is the key to competitiveness," he says. "If Republicans pretend there isn't a problem, they won't connect with the voters."

Abortion is another issue that could bring the Democrats gains in the 'burbs. Pro-choice women, including many in the conservative suburbs of central Florida, helped defeat Republican Governor Bob Martinez in his re-election bid. The Florida GOP had crowed that the half-million voters it had added to its registration rolls since 1982 would be its secret weapon in 1990. But they didn't count on women such as Karen Sparks, a Republican whose vote helped Democrat Lawton M. Chiles to victory. "Martinez had no right to make decisions for women on choice. That was the pivotal issue for me," Sparks said as she left the polling place near her home in the upscale town of Oviedo.

TEACHER DEINES: "PARTY LABELS ARE GETTING BLURRED"

As urban politicians watch the partisan tug-of-war over the suburbs, they have the sinking feeling that no matter which party wins, the cities will lose.

> Urban politicians are getting the sinking feeling that no matter which party wins the suburbs, the cities will lose

Inner-city residents are becoming p... er, as the middle class flees and ... skilled jobs either disappear or mov... the suburbs. In Detroit, city offic... will lose special taxing authority, w... $190 million a year, if the popula... has dropped below 1 million, as pre... nary census reports indicate it ... have. And a legislature dominated ... non-Detroit politicians is in no moo... bail the city out.

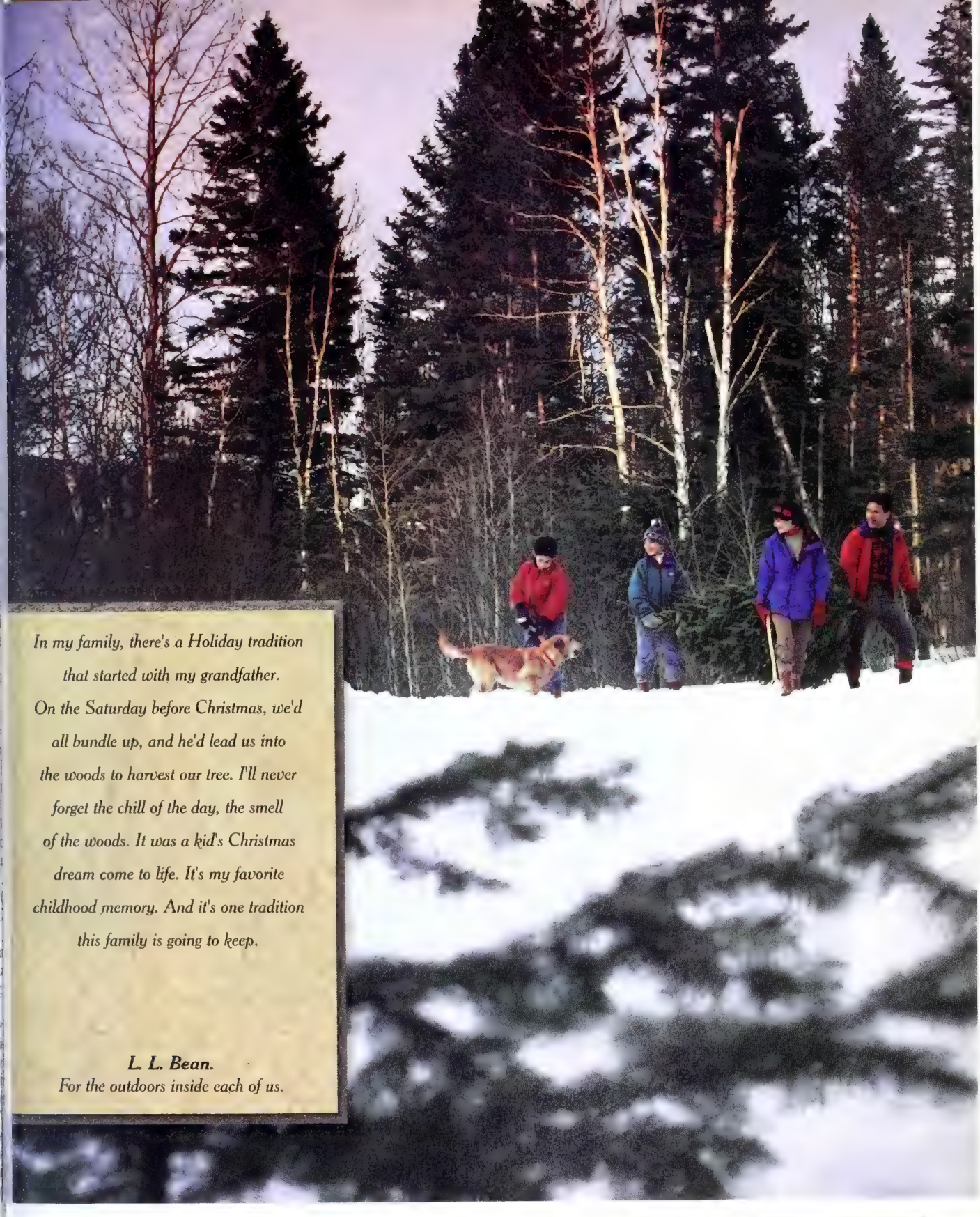
In New Jersey, Governor James ... Florio is finding out what h... pens when you try to foist ... ban priorities on the subur... He's in deep trouble with ... voters who swept him into ... fice a year ago. Now, they ... infuriated with a $2.8 bil... tax package that would ... crease aid to poor, mo... black school districts.

HEADSTART. City-bash... played a part in several P... sylvania state legisla... races this year. Republic... accused Democratic op... nents of supporting measu... that would help Philadelp... out of its fiscal crisis at ... expense of suburban taxp... ers. The tactic may h... helped the GOP maintain ... trol of the state senate.

"It is shortsightedness ... blind partisanship to ... against Philadelphia," fu... Mayor W. Wilson Goo... "The fact is that without Ph... adelphia, the Delaware Va... region does not exist." ... the Delaware Valley obvio... ly doesn't agree. And the c... ing adrift of big cities such ... Philadelphia is a major ob... cle to Democratic plans to invade ... suburbs.

The Republicans have a huge he... start on the Democrats, who are ... beginning to understand that their ... litical salvation may lie in appealing ... the Ward and June Cleavers of tel... sion rather than the downtrod... masses that New York Governor Ma... M. Cuomo eloquently described in ... 1984 speech to the Democratic conv... tion. Cuomo spoke passionately o... "tale of two cities," one Ronald R... gan's prosperous, shining city on a ... the other filled with poverty and ... spair. "A tale of the suburbs" does ... have the same poetry, but it may ... what the Democrats will need to wi... Presidential election again.

By Susan B. Garland in Washing... with David Greising in Chicago, Anto... Fins in Miami, Joe Weber in Philadelp... and David Woodruff in Detroit



In my family, there's a Holiday tradition that started with my grandfather. On the Saturday before Christmas, we'd all bundle up, and he'd lead us into the woods to harvest our tree. I'll never forget the chill of the day, the smell of the woods. It was a kid's Christmas dream come to life. It's my favorite childhood memory. And it's one tradition this family is going to keep.

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SUPERCONDUCTORS

THE HOTTEST RESEARCH IS STILL NEAR ABSOLUTE ZERO

Low-temperature superconductivity is rushing to market

When researchers discovered "warm" superconductors in 1986, the hype moved faster than electricity through a superconducting circuit. For 75 years, scientists had thought that superconductivity—the absence of any electrical resistance—could only be achieved at just above absolute zero, or –459.67F. So when they found that the phenomenon occurred at far higher temperatures, even staid researchers got carried away, predicting that advances such as magnetically levitated "bullet" trains and ultrafast supercomputers could jump from the lab to market.

Lost amid the hoopla was the slow but steady progress being made in dull old low-temperature superconductors. Now, while scientists struggle to tame the promising but fickle materials needed to make warm superconducting work, the low-temp variety is outpacing its more publicized cousin in the race to market. "It's the only game in town," says David F. Sutter, chief of advanced technology R&D at the Energy Dept.'s High Energy Physics Div.

TEMPTING PRIZE. Already, the first major use of cold superconductivity—in magnetic-resonance imaging (MRI) machines that scan the structure of the brain—has created a $1 billion annual market. Several companies are aiming to capture what could be a similar-size business for a new system that would let doctors pinpoint which brain tissue has been damaged by trauma. Meanwhile, electronics companies are making superfast superconducting circuits: The Japanese even have a crude computer. And U. S. companies are vying to build the 10,000 magnets for the giant Superconducting Super Collider (SSC), the Energy Dept.'s planned particle accelerator in Waxahachie, Tex.

Low-temp superconductivity has faced one big obstacle since its discovery in 1911: proving that the speed and efficiency of low-temperature devices is worth the complexity and expense of the liquid-helium systems required to cool them. "U. S. industry has usually taken a wait-and-see attitude," says Kevin D. Ott, executive director of the Council on Superconductivity for American Competitiveness. Now, several factors have ended the waiting. Refrigeration systems are more reliable, MRI technology is a great success, and contracts for the $8 billion SSC are a tempting prize. Low-temperature superconductors, in fact, provide the only way to make some products, since the materials are more workable than their warmer counterparts. Researchers also think that whoever gains the lead in low-temperature work may have a head start in applications of high-temperature superconductivity, which work above a balmy –321F.

HYPRES' CASWELL WITH SUPERCONDUCTIVE CIRCUITS AND SENSORS

The Japanese, in particular, have latched onto this strategy. "We feel we have to get applications going first with the materials at hand," explains Yoshihiro Kyotani, president of Technova Inc. and an adviser on the Japanese superconducting train project. "Later we can switch to high-temperature materi

In the meantime, companies in Jaa the U. S., and Germany are designi broad range of products. For insta superconducting magnetic energy age (SMES) systems might let utilities by with less power-generating capa During periods of low demand, could store current in a huge super ducting ring, where it would zip ar without losing energy. When more er is needed, the ring could be tappe 1983, the Bonneville Power Admini tion proved that such a device w But a system with the storage capa of 5,000 megawatt-hours would co billion. So utilities won't invest u working prototype is developed, say alyst Gregory Eyring of the Congre nal Office of Technology Assessme

STAR WARS. That may happen, thank the Pentagon. Because it could s huge amounts of electricity, a ring power could deliver a ma jolt—just the ticket for Wars lasers or electron netic guns. So the Def Dept. plans to spend $120 lion to build a 20-mega system by the mid-1990s, a magnet 432 feet in diam at the center. Bechtel Na al Inc. and Ebasco Serv Inc. are bidding to build system.

Military dollars are als nancing the hunt to per superconductive electr circuits. These devices p ise to move data up to times faster than conven al semiconductors while suming a tiny fraction of power. That makes them i for sensors and micropro sors on fighter planes or ellites, where the need fo tra performance outwei concerns over cost.

The first devices are on way. At tiny Hypres Inc., in Elmsf N. Y., Chairman Hollis Caswell's e neers have fashioned infrared sen for spotting the heat from enemy siles and developed converters change analog signals to digital info tion. TRW Inc. in Redondo Beach, C has built a superconducting ampl whose level of disruptive internal n is 1,000 times lower than the best s conductor device. "Once these dev work, we believe that there will be c mercial spin-offs," says Arnold H. ver, chief scientist for superconduct at TRW.

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temperature superconductor circuits are now the only way to build a so-called petaops computer, one that can perform 1,000 trillion operations a second, instead of the 20-odd billion done by today's supercomputers. The path to such a machine has been rocky: IBM dropped out of the race in 1983, partly because it couldn't build practical memory devices using the exotic technology.

But since then, the Japanese Ministry of International Trade & Industry's Electrotechnical Laboratory in Tsukuba has developed the basic elements of a superconducting computer. By March, 1993, team leader Toshio Tsurushima expects to put a complete computer on a chip. Clusters of the liquid-helium-cooled chips could do trillions of operations per second.

SQUID ROW. These efforts could get a boost from an experimental technique developed in the Soviet Union. In superconducting integrated circuits, the digital data is represented by changes in voltage. Russian scientists, though, have figured out a way, called rapid single flux quantum logic, to process data with changes in magnetic fields. Because voltages don't need to be changed with each operation, the technique "has the potential to buy us a couple orders of magnitude in improved performance," says TRW's Silver. It still isn't clear, however, whether such gains are worth the added expense, especially since conventional semiconductors get faster all the time.

There are no such doubts about low-temperature superconductivity's impact on medicine. MRI machines, their innards cooled by liquid helium, are already in hundreds of hospitals. Now, equipment makers are competing to commercialize a superconducting imaging system that uses magnetic sensors to measure brain activity. Known as magnetoencephalography (MEG), the process detects magnetic fields generated when brain cells create minute electrical currents as people think, watch a movie, or command a finger to twitch. Researchers can measure the electrical signals using electroencephalography, or EEG, technique, but the signals are distorted as they pass through the skull. So scientists use ultrasensitive gadgets called SQUIDs (superconducting quantum interference devices) to detect the magnetic fields.

The $2.2 million system built by Biomagnetic Technologies Inc. in San Diego, for example, relies on an array of 37 SQUIDs. Placed close to a person's head, the device can locate the source of brain activity to within a few millimeters. In the case of a stroke victim, it could show a precise picture of which brain tissue is dead and which is only injured," explains Eugene C. Hirschkoff, vice president for special projects at BTI. The company has installed systems at research institutes in the U.S., Germany, and Japan, where scientists are trying to correlate the MEG picture with actual brain disorders. BTI is trying to stay ahead of German giant Siemens and a joint venture between the Helsinki University of Technology and IBM in the race to build these instruments.

WARM GLOW. The current burst of activity could lead to more uses, such as in generators or motors, or in magnetically levitated trains, which are often portrayed as working only with high-temperature materials. "Everything that has been predicted for high-temperature superconductivity in the next 10 years can already be done in low-temperature," insists Carl H. Rosner, president of Intermagnetics General Corp. in Guilderland, N. Y., which makes superconducting wire and magnets.

Warm materials may steal the limelight once they work: Cooled with liquid nitrogen, they would be cheaper to use. But for now, low-temp technology is enjoying a moment of glory.

By John Carey in Washington and Neil Gross in Tokyo

SUPERCONDUCTING CATCHES ON

ENERGY STORAGE Superconductivity Inc. makes small energy storage devices. Bechtel and Ebasco have designed large systems

COMPUTERS Japan's Electrotechnical Laboratory is building a machine from superconducting components

MEDICAL EQUIPMENT General Electric and Toshiba sell MRI machines. Biomagnetic Technologies makes magnetoencephalography (MEG) systems for brain-imaging

MAGNETS AND WIRE Intermagnetics General and Japan's Hitachi, Mitsubishi, and Toshiba churn out magnets for magnetic resonance imaging (MRI), particle accelerators, generators, and trains

ELECTRONIC DEVICES TRW, Hypres, Hitachi, Fujitsu, and NEC produce devices such as microwave receivers, digital microprocessors, and integrated circuits

SSC MAGNETS Westinghouse & General Dynamics are the main contractors for the 10,000 magnets for the superconducting supercollider

DATA BW

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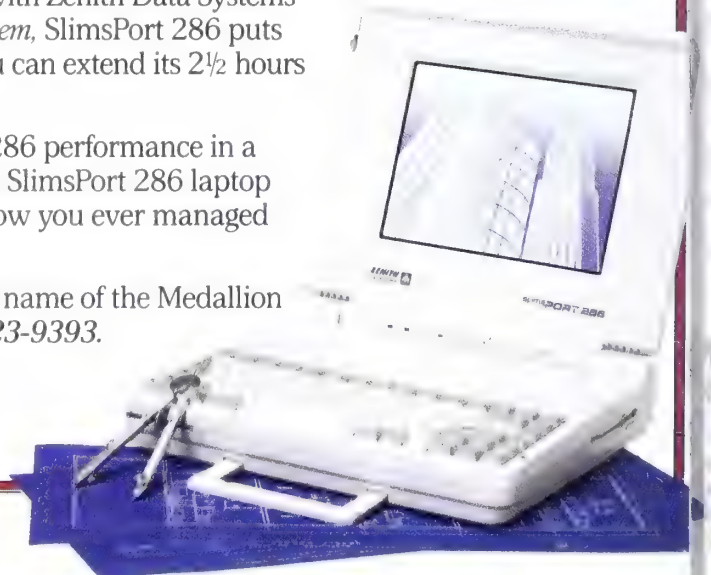

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Groupe Bull

*Source: 1990 Dataquest estimate for U.S. battery-powered laptops. Graphics simulate Microsoft® *Windows™ version 3.0,* a product of Microsoft Corporation. *Intelligent Power Management* is a trademark of Zenith Data Systems Corporation.

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ITED BY ROBERT BUDERI

IST ADD WATER, ND THIS PACKING DISAPPEARS

Everyone likes to open packages. But those polystyrene peanuts often used to fill loose spaces can be a pain: Being nonbiodegradable, they add to the garbage crisis. Now comes Eco-Foam. The cylindrical pellets look like polystyrene. But unlike the plastic, Eco-Foam is a breeze to discard: Just add water, and it disintegrates before your eyes.

Made by American Excelsior Co. in Chicago, Eco-Foam is 95% cornstarch. The other ingredient is a water-soluble organic polymer, and the resulting material can be disposed of in environmentally sound ways. an be put in a compost pile, washed down the drain, or left in the rain. The drawback is price: Eco-Foam costs up to 50 per cubic foot vs. 65¢ for polystyrene peanuts. Still, American Excelsior says sales are soaring. It now has t one production line but plans to add five more by next ar. National Starch & Chemical Corp., which invented the ff, expects eventually to use Eco-Foam for other types of kaging—such as the end caps that cushion stereos.

RCHITECTS OPEN A NEW FRONT I THE WAR FOR THE ENVIRONMENT

Architects have always been concerned with the environment, but usually the aesthetic kind. The environmental lfare of the planet may be more on their minds soon, wever. On Nov. 13, the American Institute of Architects A) kicked off a three-year project that could influence how ions of dollars are spent each year on construction and erior design materials.

Starting next spring, the AIA will produce the *Environmen- Resource Guide* to detail for architects such things as the oor air-pollution potential of various products and the effect talled materials have on energy consumption. The first is- will include reviews of plywood, paints, sealants, and vinyl or and wall coverings—as well as give recycling pointers. chitects exert substantial influence on the building-materi- market, so a range of suppliers are cooperating with the ort and providing product information, the AIA says. The vironmental Protection Agency also is expected to take part the effort—and is considering a grant to the group.

APAN MAY GET AN HDTV DEHOLD IN EUROPE

Europe's strategy to defend its TV manufacturing industry against Japan in the huge future market for high-definin television (HDTV) is suddenly in tatters. The Europeans, led Dutch giant Philips and France's Thomson, had hoped to e the transition to HDTV with an interim standard, dubbed C, which offers enhanced pictures and audio. MAC, in turn, s to form the basis of Europe's own HDTV system. This standard, HD-MAC, would have been incompatible with Japan's HDTV system—thus blocking it in Europe.

Now these plans are in jeopardy. The announced merger in early November of Sky Television and British Satellite Broadcasting Ltd. (BW—Nov. 19), the only British transmitter of MAC signals, effectively kills the standard in Britain. It was already waning in Germany, where broadcasters want to stick with current, lower-cost technology. And things don't look good in France, where satellite technical problems have delayed MAC transmission. To help keep MAC alive, sources say the Europeans have now turned to none other than the Japanese. They're asking for money to help German broadcasters convert to MAC—and for help with advanced HDTV technologies. The quid pro quo: Japanese rights to develop MAC TVs for Europe—just what the Continent had hoped to avoid.

A 'TROJAN HORSE' COULD FORTIFY AIDS PATIENTS

The AIDS virus ravages the immune system, leaving victims open to a slew of infections. Slowly, doctors are prolonging AIDS patients' lives with drugs that keep invaders at bay—but new killers keep emerging. The latest is a rare bacterial infection called Mycobacterium avium-intracellulare, or MAI, which is now thought to infect from 30% to 50% of AIDS sufferers.

MAI is hard to treat because it takes root within cells—so antibiotics, which can't penetrate cell walls, are almost useless. However, The Liposome Co. in Princeton, N. J., may be about to attack MAI with a new drug called TLC G-65. The drug itself is a standard antibiotic. What makes it novel is the use of liposomes. These bubbles of fat are ingested by many types of cells. The TLC G-65 bubbles are engineered to burst and release an antibiotic cargo after being swallowed by cells. TLC Senior Vice-President Anne Van Lent says the approach is akin to "loading soldiers inside a Trojan horse." In animal trials, the drug was effective against MAI, and on Nov. 8 the company announced it would begin testing the new drug's effectiveness in people.

CUTTING THE FAT OUT OF *FROMAGE*

"Two butter croissants—*sans* cholesterol, *s'il vous plait*." Soon, that won't be a preposterous request, says French dairy company Entremont. From the land of fat-rich Camembert comes a butter and four cheeses with only traces of cholesterol: about 15 milligrams per 100 grams of butter, compared with 250 milligrams in the normal product. The healthier versions don't taste quite as rich, but they retain all the original food value.

Entremont, a subsidiary of Elf Aquitaine, removes the butterfat from milk and mixes it with water and a modified starch called beta cyclodextrine (BCD). The BCD molecule surrounds cholesterol in the fat, making it insoluble and heavier, thus separable via centrifuge. Entremont hopes to launch its new foods in France in March, under the brand name Natual. Prices will compare with those for the real thing. So far, Entremont has no plans to market in the U. S. Meanwhile, Belgium's Corman has developed a rival BCD-based process.

STRATEGIES

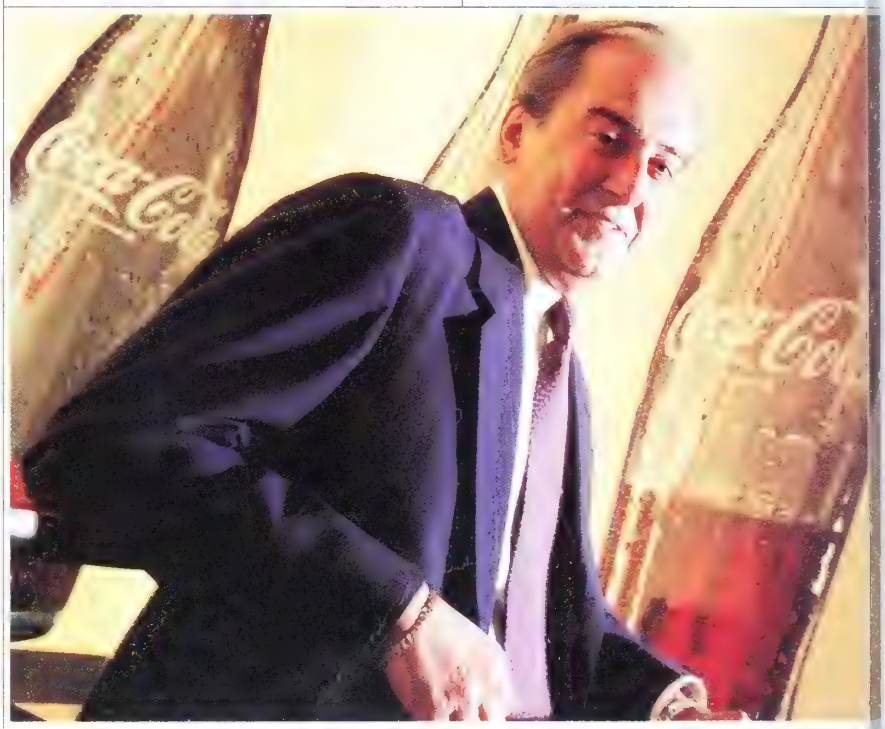
THE REAL THING IS GETTING REAL AGGRESSIVE

Coke pours millions into hard-edged promotions and new products

The movie *Days of Thunder* may not have been the blockbuster Paramount Pictures was expecting, but it was a hit for Coca-Cola. Forget about Tom Cruise, the movie's heartthrob leading man. As far as Coke was concerned, the star was a grade B soda pop called Mello Yello, Coke's once-neglected competitor to Pepsi's successful Mountain Dew. In the movie, Cruise races a souped-up Chevy Lumina to victory. It's hard to miss the Mello Yello logo emblazoned on the hood.

Didn't catch the movie? It was harder to escape Coke's $3 million-plus promotion and ad campaign, featuring a Lumina giveaway, T-shirts, racing jackets, and a commercial starring one of the movie's characters. Since the movie was released last June, the hot-rod hoopla helped jump-start Mello Yello half a percentage point, to a 1.7% share in the 70% of the country where it's sold. In the $44 billion U.S. soda market, the increase represents $154 million in sales. And it's a welcome gain on Mountain Dew's 3.6% share of the overall market.

Of course, Coke isn't new to the promotions game, and its red cans have played bit parts in movies for years now. But rarely has Coca-Cola Co. staged such an elaborate campaign for so minor a brand. Now that it has slimmed down from the days when its businesses ranged as far afield as wine and movies, Coke is a soft-drink company. Period. That has spawned an aggressive new marketing strategy at the $9 billion company. With Coke facing slow U.S. growth and a continued onslaught by PepsiCo Inc., there is no advantage too small to fight for these days.



GOIZUETA SQUEEZES OUT GROWTH WHERE HE CAN—HE'S EVEN TRYING TO RELAUNCH NEW COKE

In light of the stiffer challenges in its U.S. market, Coke is reinventing the way it manages its domestic marketing. It's relying less on the feel-good image ads that long characterized its efforts (remember "I'd like to buy the world a Coke"?). Nowadays, Coke is focusing more on harder-edged promotions, such as a Super Bowl ticket giveaway. It's also pushing into joint marketing ventures with partners ranging from moviemakers to fast-food chains. It's launching a clutch of new products, and even trying to pump life back into New Coke, its fiasco of the 1980s.

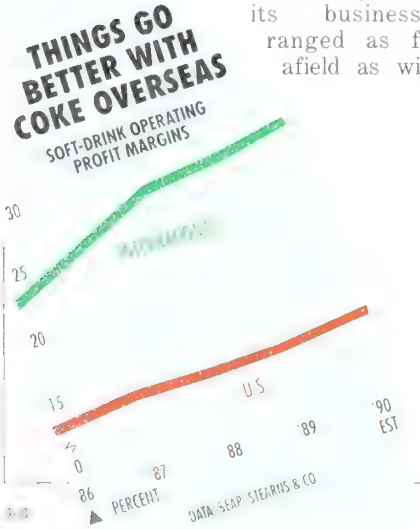
Critics of Coke's new moves worry that the joint ventures are muddying Coke's image by yoking it to too many partners. They say that advertising and long-term image-building are getting short shrift. And they think that Coke should finally just give up on New Coke.

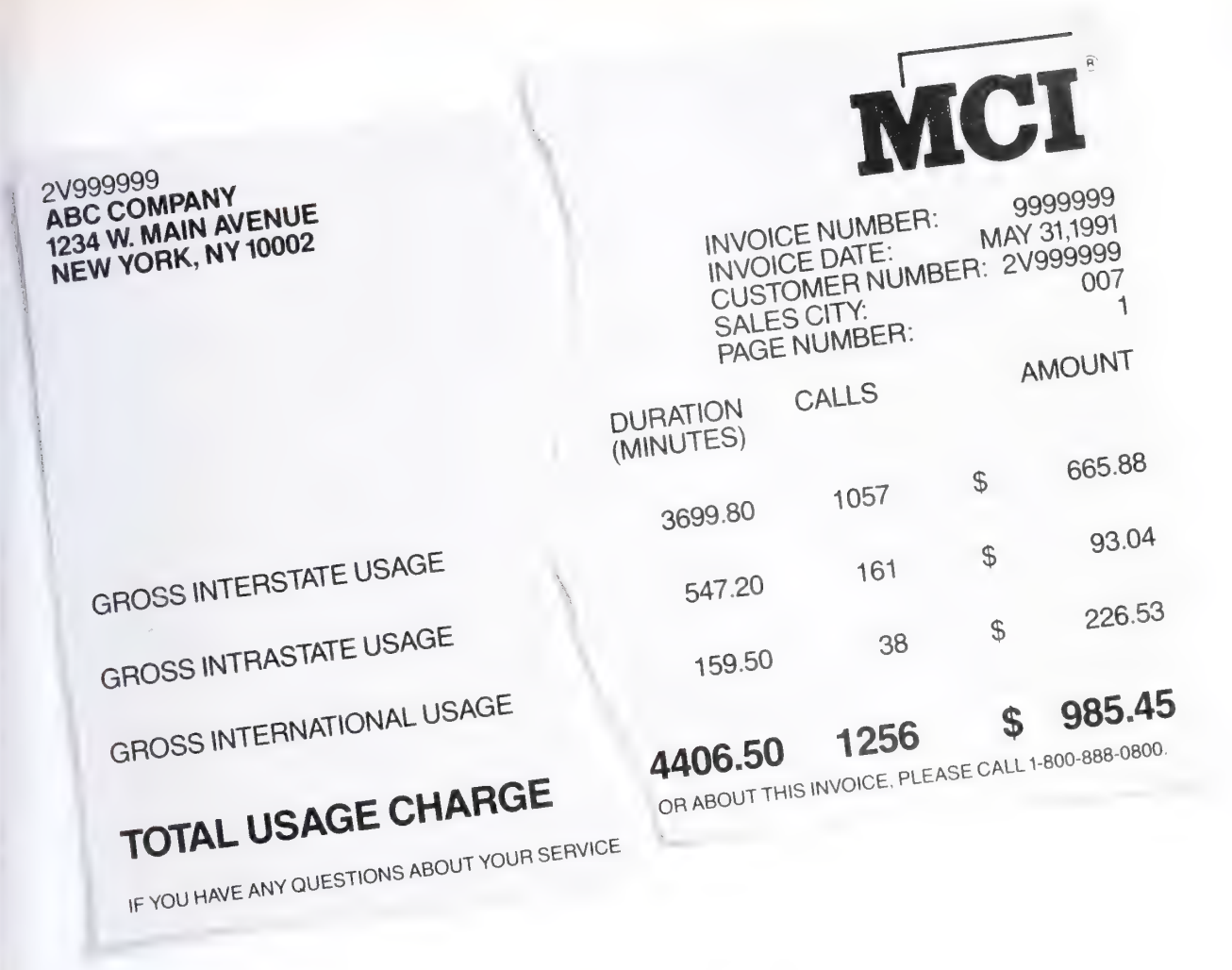
For all its ferocity, the U.S. battle is being waged over an American market that's now just a fraction of Coke's global total. After a long international push by Chairman Roberto C. Goizueta, overseas operating income is now almost 77% of Coke's total of almost $2 billion, up from 53% in 1985. And with non-U.S. consumption of Coke's sodas averaging only about 56 servings per person each year, compared with 283 in the U.S., there's plenty of room for more growth.

From a marketing and management perspective, however, the U.S. is still Coke's most important turf. The company's highly centralized structure means that much of its international operations are managed from Atlanta. "In a sense, the U.S. is the test market for the world," says Coke President Donald R. Keough. "When good things happen, we can export them around the world. And when things don't work, we make sure they don't get exported."

GUERRILLA TACTICS. The home market also has an importance far beyond its financial weight. It wouldn't do to be outdone by Pepsi in the U.S. Says one former Coke executive: "They don't want to be embarrassed in their own backyard." That's why Coke's legendary guerrilla marketing has been ratcheted up to a new intensity in the U.S.

The fountain business is where the new push is paying the most obvious





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dividends. Sales through fast-food and other fountain outlets provide much of the lead that gives Coke products 40.5% of the domestic market, compared with Pepsi's 31%. Thanks to recent big account wins at Burger King, Wendy's, and other chains, Coke expects a 10% volume gain in fountain sales next year, largely at Pepsi's expense. But on grocery shelves, which account for 40% to 45% of industry sales, the battle is much fiercer. Coke brands collectively enjoy just a two-point lead over Pepsi brands, while their flagship brands each had 17.3% of the market last year.

And Coke must run faster just to stay in place, thanks to the slowing growth in the U. S. market. As the population ages and alternatives to soft drinks such as bottled water proliferate, growth is expected to sag to only 2% to 3% this year, compared with 5% in 1988. Last year, Coke's U. S. operating profits grew 8%, compared with a 13% jump in international operating profits.

Coke executives, however, are bullish on the U. S. market, even though their volume growth has fallen by half in the past decade, from 5% in 1980 to 2.5% in 1989. "There's plenty of growth left," says Ira C. Herbert, president of Coca-Cola's North American soft-drink unit. To squeeze it out, Herbert and M. Douglas Ivester, the new head of Coca-Cola USA, restructured the promotions side of Coke's U. S. marketing department last year, forming three special groups to hunt for promotion opportunities.

The entertainment group is where the *Days of Thunder* connection was born. A separate "prestige accounts" group inks deals with big customers such as Walt Disney World Co. and Madison Square Garden. For example, Coke will co-sponsor the halftime show at Super

IN ASIA, THE SWEET TASTE OF SUCCESS

When the Coca-Cola delivery truck shows up at a Wellcome supermarket in Taipei, the driver also takes the time to clean the shelves, rearrange the cans, and make sure the cardboard signs get maximum visibility. In the U. S., any grizzled veteran of the Cola Wars learned that tactic back in boot camp. But when Coke unleashed guerrilla marketing in Taiwan in 1985, competitors scarcely knew what hit them. Coke's share of that country's $735 million soft-drink market has since zoomed from a modest 6% to a market-leading 40%. Coke's U. S. marketing nemesis, PepsiCo Inc., hasn't fared so well. Together, its Pepsi and Seven-Up brands account for just 4% of the Taiwan market.

A VERTICAL BOTTLING PLANT IN CRAMPED HONG KONG

Coca-Cola Co. has been in the Orient since the 1920s. But Chairman Roberto C. Goizueta has attacked Asia in earnest for only about a decade, and the results provide a case study in how foreign operations have become the engine of growth for the company's profits. Coke is breaking away from the pack in Hong Kong and Taiwan. And in China, where soft-drink consumption is growing fast, it has laid out $75 million over 10 years to build the country's largest bottling network, with 13 plants.

NO CAPITAL. Nowhere has the increased corporate attention paid off more than in Taiwan. Five years ago, the business was in "sorry shape," recalls R. Fenton-May, senior vice-president of Coca-Cola Central Pacific Ltd. The market was dominated by local sarsaparilla and lemon-lime drinks. Coke's Taiwan bottler, a family-owned concern, lacked capital to expand, and Coke balked at increasing its profile because it feared antagonizing Beijing. But as tensions eased, Coke took a 49% stake in the bottler in 1985, dispatched a team of American managers, and pumped in $4 million for new trucks and manufacturing equipment.

Then came the marketing assault. In addition to aggressive point-of-sale marketing, Coke boosted its advertising and introduced new packaging sizes. It keeps up a steady diet of promotions. Coke invites American coaches to conduct baseball and basketball seminars around the island and sponsors concerts by pop artists such as Stevie Wonder. Last year, the company invited the chef of the Taipei Hilton to create 10 Chinese dishes using Coke—including fried frog legs in a Coke-and-garlic sauce, and braised spareribs in Coke and ketchup.

In Hong Kong, Coke has long been No. 1, but it continues to boost its market share by a percentage point a year, according to the Hong Kong Beverage Manufacturers Assn. Soft drinks produced by its 29%-owned bottler, Swire Bottlers Ltd., account for 70% of the $400 million market. The 17-story plant, designed for Hong Kong's limited spaces, is one of the world's oddest. Conveyor belts zip cans and bottles from floor to floor, while massive lifts hoist delivery trucks from street level to loading docks high above the territory's Quarry Bay distri

Besides selling its colas and Fanta a High C fruit-flavored drinks, Coke is t ing to grab even more market share w a line of Chinese-style favorites such s soy milk and flavored tea drinks. It al wants to boost soft-drink consumptio still only a quarter of U.S. levels on a p capita basis. It is launching new packa ing and looking at introducing more ver ing machines, still a rarity in Hong Kon In 1991, Coke will open a new $70 millio 18-story plant. Yet another facility is e visioned for the mid-1990s. Coke n uses Hong Kong as a hub to train pla managers and salesmen from China a Taiwan.

MOTORCYCLES. Coke has had to take much longer-term view in China. It w one of the first U. S. companies to da through the "open door" in the late 197 Only now is it breaking even. Sales su fered this year because of a drop-off tourism after the June 4, 1989, massac the government's austerity program, a stiffer duties on aluminum used in ca But Coke is betting the Middle Kingdo is worth the gamble. Soft-drink consum tion has risen tenfold, to 600 million cas annually. "China is still in the early yea of the soft-drink business," says Fento May. "But by the year 2000, it will riv Japan as the biggest market in Asia."

China is also big enough for lively co petition. Pepsi has seven bottling plant and says sales are on a par with Coke Coke sponsors big sporting events a sets up booths at public festivals. It al employs fleets of sales reps, paid on a incentive plan and traveling on motorc cles, to call on retailers. It may be yea before the market is rich enough to p off for either Coke or Pepsi. But with 1 billion potential customers at stake, t Cola Wars have broken out in earnest China.

By Pete Engardio in Hong Ko

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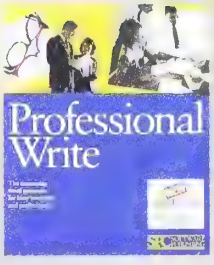

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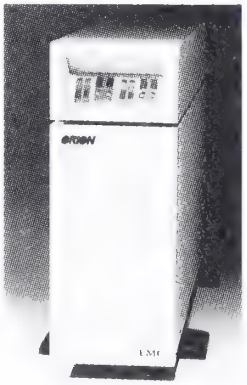

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Bowl XXV with Disney. And a ne sports group has been charged wi finding ways to make the most of Coke exclusive sponsorships of the Natio Football League, Major League Ba ball, and the Olympics. Diet Coke is n featuring a bingo-type game with Sup Bowl tickets as the prize.

To be sure, these joint ventures he Coke gain valuable exposure. But number of marketing executives wond if Coke is spreading its name too thin lending it to so many joint deals, wh paying too little attention to image-bui ing ads. "The last memorable Coke s gan was 'It's the real thing,' and th was years ago," says one advertisi executive.

FRESHER FRESCA. Coke is also looki for growth through its new-produc group, formed last year. "We used t think about new products in our spa time," says Herbert. "Now there's a group with responsibility for generati new ideas." Earlier this year, the gro reformulated and reintroduced Fres Coke's neglected and struggling gra fruit-flavored soda, in Atlanta. Herb says the brand has already snared 3% o the local market. Other recent additio include PowerAde, a Gatorade clone, a Caffeine Free Coca-Cola Classic.

Pepsi also restructured its domes marketing last year, creating four re gional companies with a fair amount autonomy over local marketing. That's direct contrast to Coke's centralized a proach. "The jury is still out on wheth we have the right structure or Co does," says Craig Weatherup, chief ex utive of Pepsi-Cola North America. "E we believe we're more nimble and fle ble on a local level."

Maybe. But flexibility doesn't alwa prevail against brute force, and Co Cola's introduction of Coke II may p vide the test. Coke II is—surprise!—si ply New Coke, the sweeter version Coke launched in 1985 to compete he on with Pepsi, in a new can with a n ad campaign. The introduction of N Coke caused a consumer uproar, a chastened Coke executives eventua brought back the original formula. N Coke has been sputtering ever since.

Early results for Coke II were le than spectacular when it was test-m keted last spring in Spokane, Wa Coke executives were flabbergast when Pepsi pumped nearly $1 milli into a counterattack that included s cial TV ads, heavy couponing, and a peals to retailers to ignore Coke Pepsi credits the swift reaction to regional structure. Ultimately, howev Pepsi couldn't sustain that level spending in just a single market, a Coke executives claim their brand h

Nov
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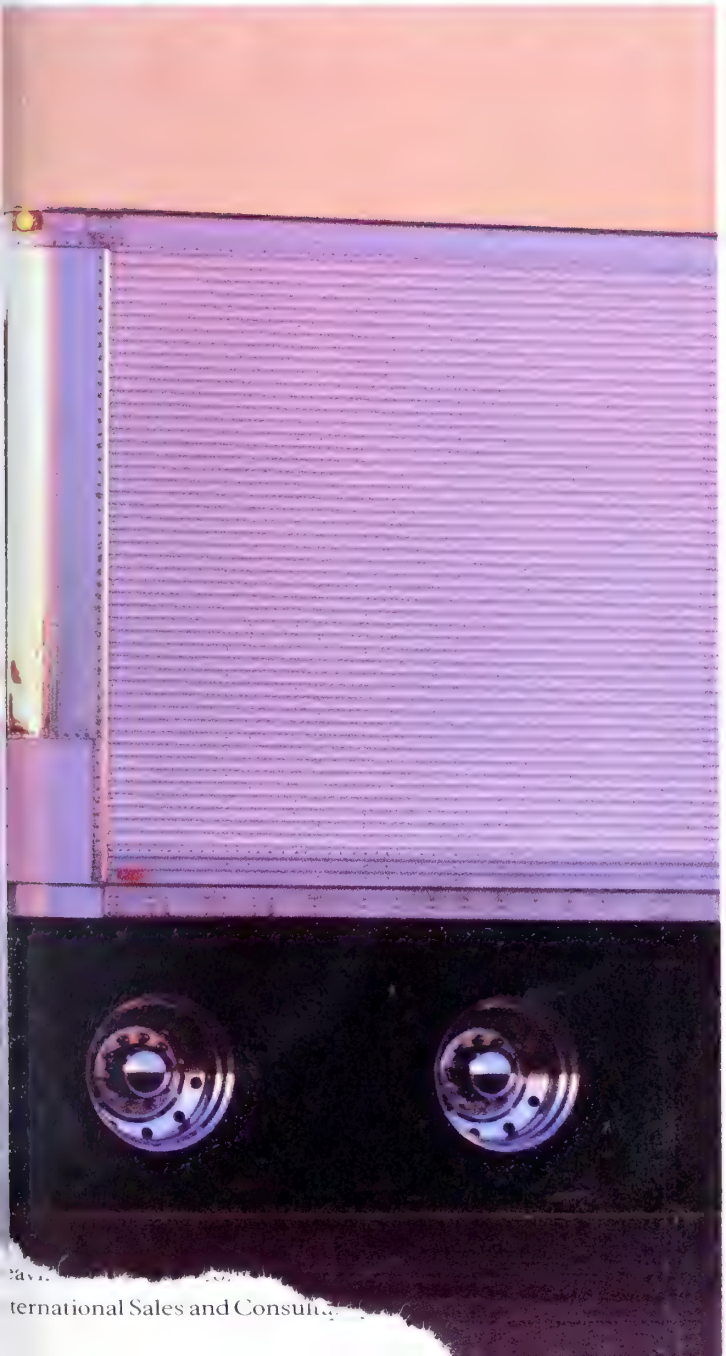

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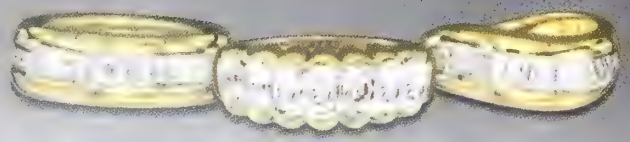

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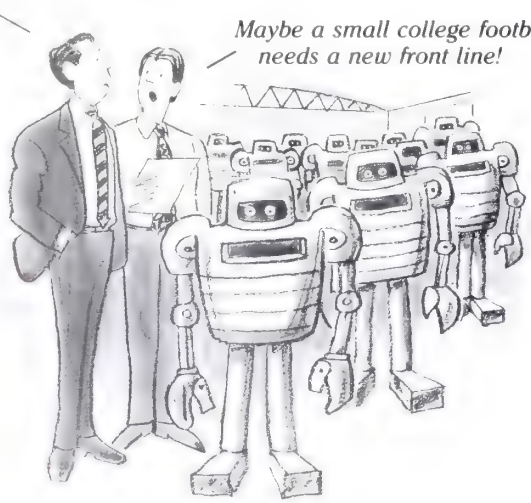

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gone from a 0.6% share of the Spokan market as New Coke to 2.5% today.

Coke executives are now running cautious, limited test of Coke II in Chic go, hoping to learn whether the brand taking share from Pepsi or merely cann balizing Coke Classic. They aren't sa ing when they expect to roll out Coke I but some critics hope they won't. "It crazy to squander resources on a bra that everybody knows is dead," says o beverage industry consultant.

'WHERE THE MONEY IS.' Meanwhile, Co is lavishing plenty of attention overse where it outsells Pepsi 4 to 1. "It's li when they asked Willie Sutton why robbed banks and the answer wa 'That's where the money is,'" Goizue says. "We're concentrating on intern tional because 95% of the populati lives outside the United States."

After Goizueta took the reins in 19 he quickly zeroed in on the global ma ket for long-term growth. He sold hodgepodge of diversification, and to on significant levels of debt for the fir time. He also cut the dividend from 6 of earnings to 40%. "We were saddl with conservative financial policies, consequently we weren't investing in t business," says Goizueta. He used t cash to acquire or buy large stakes bottlers in the U. S. and overseas.

Last year, Coke received a $1.1 billi bonanza when it sold its 49% stake Columbia Pictures to Sony Corp. Most that went straight into overseas oper tions. These investments give Coca-Co more control, especially in crucial are such as Europe, where soft drinks a becoming more popular and new ma kets are quickly opening. Unhappy wi longtime bottler Groupe Pernod Rica in France, for instance, Coke bought t business outright last year. Since the French volume has increased 23%. A Coke was shipping soda to East Germ ny days after the Berlin Wall fe thanks to a new plant in Dunkirk.

The results of Goizueta's internation focus have been impressive. Coke boas a lofty 38% return on equity, and i stock hit a high of nearly 48 earlier th year. Coke has pulled back with the fa ing market, but it still outperforms t Standard & Poor's 500-stock index (pag 194). Excluding extraordinary gain earnings and revenues for 1990 shou be up 17%, to $1.4 billion on $10.5 billio says Jay Nelson, an analyst at Brow Brothers Harriman & Co. He projects 14% annualized growth rate for overse operating profits over the next fi years. Now, if only Goizueta could g U. S. operations to be as big a force Coca-Cola's income statement as th are in its heart and history.

By Walecia Konrad in Atlan

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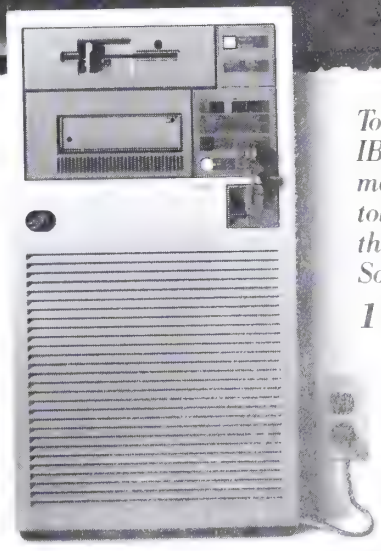

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HOTELIERS

FROM WALLFLOWER TO BEAU OF THE BALL

Ian Schrager's modish hotels are hits—and he loves the attention

It's probably the 100th private tour he has given since the Paramount opened in late August, but Ian Schrager still seems tickled by the oddball touches scattered around his new hotel: the glowing orange light in the elevator he finds "so much fun," the megaphone-shaped washbowls, the hallway mirrors that spell out weather forecasts in little lights. But what really grabs Schrager is the serendipitous scene he finds in the lobby. Among the brightly colored orange and purple chairs set at artfully skewed angles, a group of distinctly modish Europeans with asymmetrical hairdos contrasts nicely with a funky Japanese couple in dark glasses and jeans. "Ooh, don't you just love them," says Schrager. "I wish I could make it look like this all the time."

Don't put it past him. Back in the 1970s, Schrager and partner Steve Rubell were known for screening customers at their Studio 54 disco. Standing behind a velvet cord, they would pick and choose, creating the spiciest possible blend of clientele. It was much the same five years later at the Palladium disco, where the two tapped the lucky few for entry into the exclusive VIP room.

Now, Rubell is gone. Schrager's best friend for 25 years—and the man with whom he was jailed for tax evasion in 1981—died over a year ago, leaving Schrager to carry on the duo's six-year-old hotel venture. "I feel naked," confesses the 44-year-old Schrager. After all, Rubell was the one who adored the limelight and played public image-maker. The introverted Schrager was the brains behind the design ideas for the discos and the team's hotels, but to the world, he was the wallflower partner who never once danced at Studio 54.

These days, the wallflower is moving onto the dance floor. The Paramount, located in New York's theater district, is Schrager's first hotel since going solo—and it's drawing a crowd. Slackening tourism and a glut of hotel space have cut New York hotel occupancy rates to 71% for the first eight months of this year, according to accountants Pannell Kerr Forster. But the discount-priced, 610-room Paramount was 91.6% occupied in October—its third month since opening. Schrager's Morgans and Royalton hotels are flourishing, too, boasting rates of 89.4% and 88.9% for the year's first eight months. Meanwhile, Schrager plans to transform his Barbizon Hotel into an urban spa, wants to create a "hip" home for old folks near Cent Park, and is negotiating for two ho sites in Los Angeles.

Sipping a double espresso in the r taurant overhanging the Paramoun lobby, Schrager raises his voice so can be heard above the pop music: "I not a hotel guy. I really feel that I more in the fashion business and t entertainment business." The hotels fa ly scream that. Individually, flourish such as the Paramount's long-stemm roses peeping from marble walls lo contrived, if not silly. But the message clear: "He's selling an attitude," sa Edward Watkins, editor of *Lodging H pitality*. Schrager's hotels are "a hav for people who either have this kind attitude or wish they did."

LOOKS COUNT. Schrager carries that a tude well beyond architectural desig The three hotels smugly fail to po signs at the front door. Schrager shu trained staffers, hiri people with no hotel e perience who will lo great in the black u forms designed Freddie Leiba. His ch assistant is being giv the rather pretentio title of "editor-a large." Schrager ev had designers pick t merchandise for t Paramount's new stand. The only too brushes allowed we created by the hote French designer, P lippe Starck. They lo like birds—and cost $

Behind the posturi is a shrewd busine man. Instead of bui ing from the ground u Schrager buys existi hotels and alters th structures as little possible. The Par mount's $75 million a quisition-and-refurbis ing cost came out roughly $100,000 room—some 50% belo average new-hotel-roo construction costs in New York. A while the $10 toothbrushes may be friv lous, sending them to 25,000 trav agents—as Schrager is doing in a cu rent promotion—is not.

But design is Schrager's first love a primary focus. His office is stuffed wi coffee-table books and magazines th he describes as sources for his inspi tion. The black uniforms worn by Mao Chinese workers in a Japanese magazi

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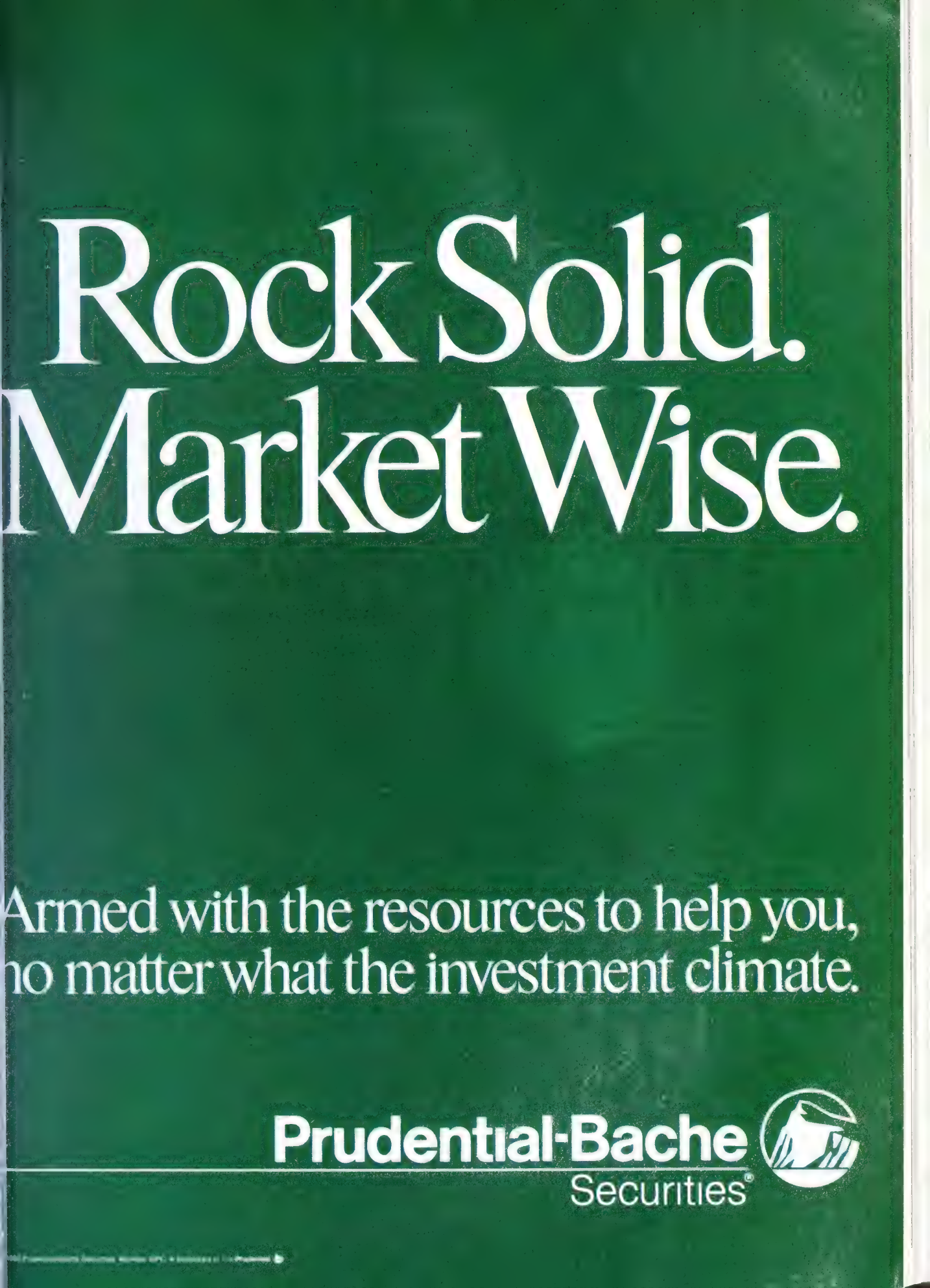

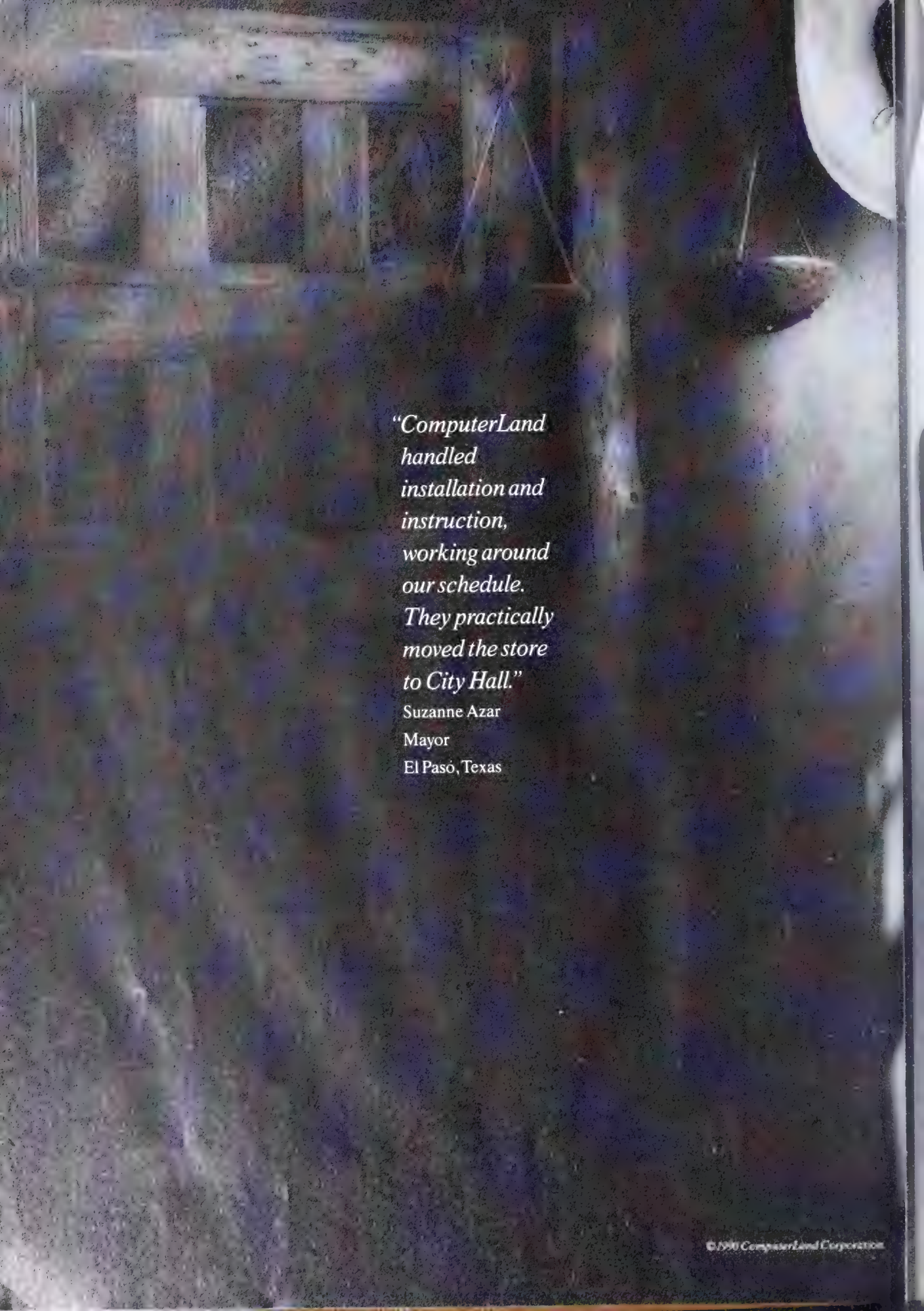

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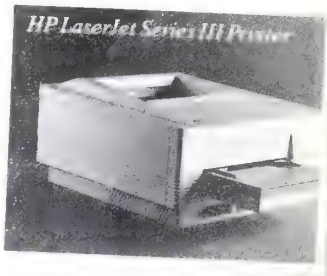

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photo became the model for those worn by the Royalton's staff. And clippings—from *Vogue* fashion spreads to a faded *Wall Street Journal* article detailing Revlon Group Chairman Ronald O. Perelman's takeover adventures—are tacked to every inch of wall space.

Schrager met Rubell at Syracuse University, where the two Brooklyn boys formed a friendship when they both dated the same girl. They became inseparable, forging a bond that Schrager later described to a newspaper as "the greatest love story since Cleopatra." When Rubell opened a restaurant in a New York suburb, he hired Schrager, who had recently graduated from St. John's University's law school, as his attorney. In 1977, Schrager dumped the law career when the two men landed financing for a nightclub.

Why Studio 54 made history in the nightlife of Manhattan can only be guessed. Maybe it was the celebrities who lent it their glitter, or perhaps it was the cocaine that was rumored to be ever-flowing. Says Schrager: "All the forces of the universe came together for us."

That is, until the forces of the Internal Revenue Service came together to discover dozens of sacks of cash the duo had stashed to avoid paying taxes. "We got carried away," says Schrager. That led to a conviction for evading $800,000 in taxes and a jail sentence of 3½ years, which was reduced to 20 months after Rubell and Schrager fingered other nightclub owners engaged in similar practices.

When they got out, they set their sights on hotels. The ex-convicts found a backer in real estate investor Philip Pilevsky. For Pilevsky's trouble in lining up bank loans, he got 50% of the venture, with Schrager and Rubell each keeping 25%. Thomas McConnell, manager of the hotel group at Laventhol & Horwath, recalls a visit to the duo's first hotel purchase in midtown Manhattan. The two were chattering madly about how hotels were to become "the nightclubs of the '90s," says McConnell. But "the place was horrible, totally seedy, with all kinds of illicit-looking characters. I thought: 'What's going on he? These guys are nuts.'" But Morgar— named for the nearby Morgan Librar opened to rave reviews in 1984. F years later came the more opul Royalton, with a lobby that resemble Dali-esque ocean liner.

'IT'S MY LIFE.' Social ties to people in h places didn't hurt. Fox Inc. Chairm Barry Diller and music-industry bi David Geffen were among their circl friends. They lunched with Loews o tels Chairman Jonathan M. Tisch became regulars at Ron Perelman's nual Passover seders. Donald Trump vited them to bid with him for the Be ly Hills Hotel (wh ultimately went Marvin Davis).

But Rubell's de from hepatitis July, 1989, th Schrager's fut into question. R estate moguls a hotel compa rushed in to try pick up a barg Schrager was de mined to hang on had no choice but stay with the b ness," he says. " my life." He says and Pilevsky h made arrangeme to buy the Rubell tate's quarter sh of their $250 mil Morgans H Group.

The plan for Paramount is make it into a self-contained resort sorts. Schrager hopes to draw crowds lining up well-known entrepreneurs set up eateries at the reasonably pri hotel. The scheduling seems to h been sloppily planned, but Giorgio Luca of Soho gourmet emporium D & DeLuca is to open a shop by n December; Parisian nightclub owner l bert Boukobca of Les Bains Douc will create a below-street-level sup club by February; and Brian McNa the restaurateur behind a series of c downtown eateries, will open a rest rant there by mid-1991.

Schrager says New York is just springboard. It will be at least two ye before the Barbizon looks like a Rom spa, but he's already planning furth expansion. In addition to the Los An les sites, he's talking about Paris, L don, Montreal, Berlin, Hong Kong, Tokyo. That should give Schrager ple of lobbies for people-watching.

By Andrea Rothman in New Y

MORGANS HOTEL GROUP

Entertainment may be Ian Schrager's calling, but hotels are his business. Here's his lineup:

MORGANS
Rubell/Schrager's first hotel opened in 1984. 154 rooms

ROYALTON
Opulent 157-room hotel with a surreal, avant-garde look. Priciest of the lot at an average $240 a night

PARAMOUNT
With 610 rooms, this postmodern creation is Schrager's discount hotel. $120 a night, average

BARBIZON
Staid, Upper East Side hotel to be reincarnated by 1992 as a fashionable urban spa

DATA: MORGANS HOTEL GROUP; BW

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RETHINKING THE COMPUTER

WITH SUPERCHIPS, THE NETWORK IS THE COMPUTER

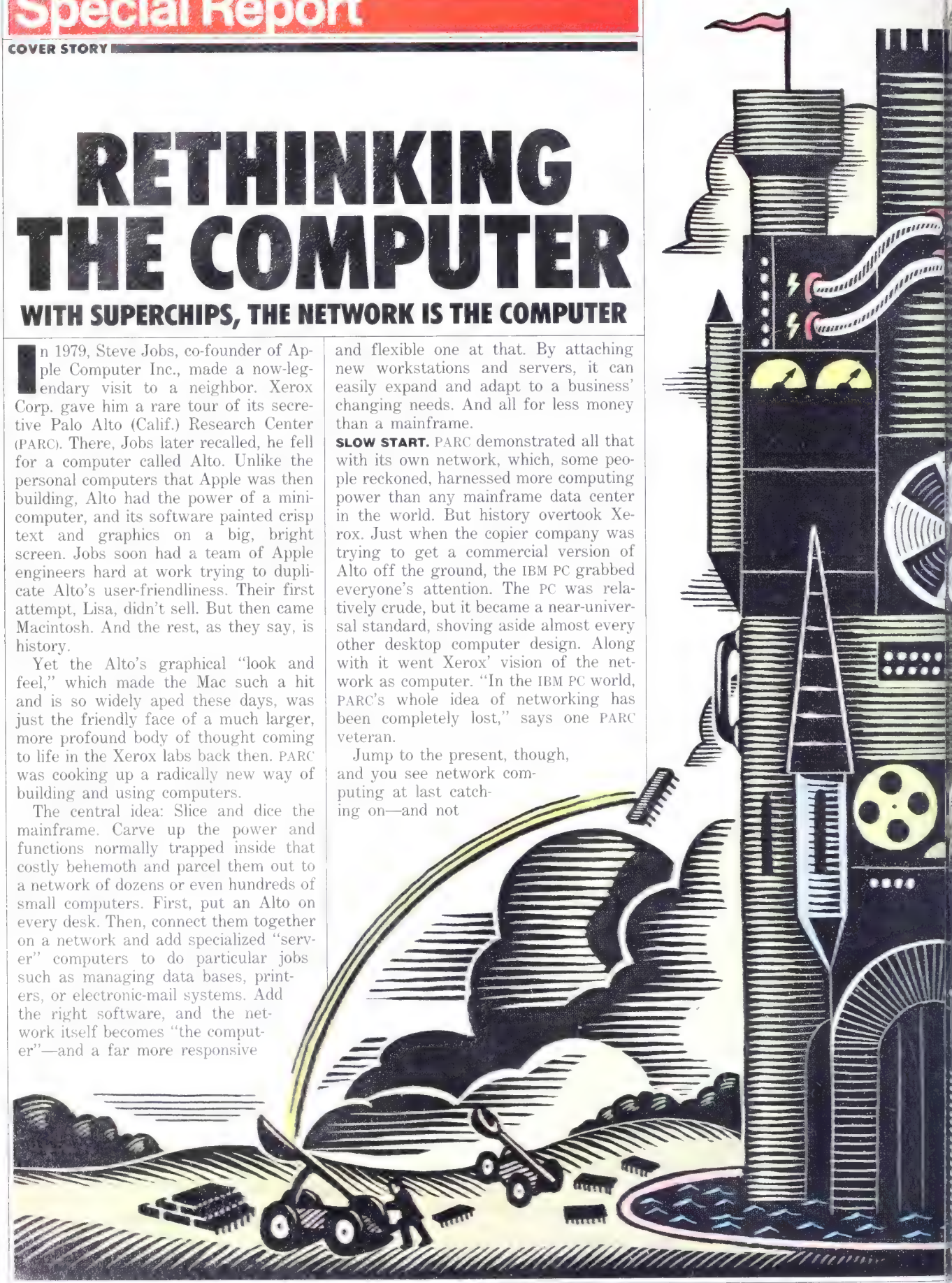
In 1979, Steve Jobs, co-founder of Apple Computer Inc., made a now-legendary visit to a neighbor. Xerox Corp. gave him a rare tour of its secretive Palo Alto (Calif.) Research Center (PARC). There, Jobs later recalled, he fell for a computer called Alto. Unlike the personal computers that Apple was then building, Alto had the power of a minicomputer, and its software painted crisp text and graphics on a big, bright screen. Jobs soon had a team of Apple engineers hard at work trying to duplicate Alto's user-friendliness. Their first attempt, Lisa, didn't sell. But then came Macintosh. And the rest, as they say, is history.

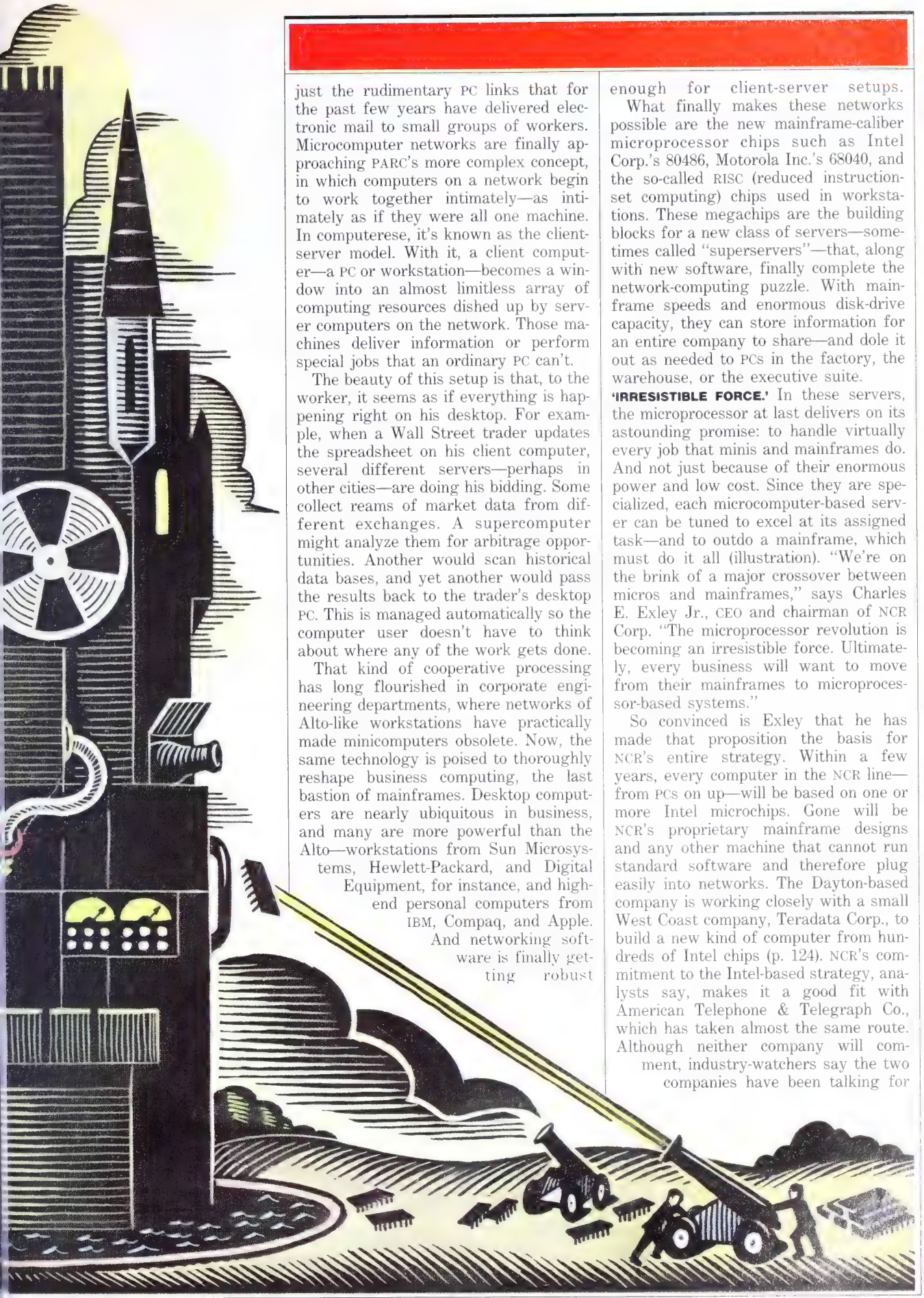
Yet the Alto's graphical "look and feel," which made the Mac such a hit and is so widely aped these days, was just the friendly face of a much larger, more profound body of thought coming to life in the Xerox labs back then. PARC was cooking up a radically new way of building and using computers.

The central idea: Slice and dice the mainframe. Carve up the power and functions normally trapped inside that costly behemoth and parcel them out to a network of dozens or even hundreds of small computers. First, put an Alto on every desk. Then, connect them together on a network and add specialized "server" computers to do particular jobs such as managing data bases, printers, or electronic-mail systems. Add the right software, and the network itself becomes "the computer"—and a far more responsive and flexible one at that. By attaching new workstations and servers, it can easily expand and adapt to a business' changing needs. And all for less money than a mainframe.

SLOW START. PARC demonstrated all that with its own network, which, some people reckoned, harnessed more computing power than any mainframe data center in the world. But history overtook Xerox. Just when the copier company was trying to get a commercial version of Alto off the ground, the IBM PC grabbed everyone's attention. The PC was relatively crude, but it became a near-universal standard, shoving aside almost every other desktop computer design. Along with it went Xerox' vision of the network as computer. "In the IBM PC world, PARC's whole idea of networking has been completely lost," says one PARC veteran.

Jump to the present, though, and you see network computing at last catching on—and not





just the rudimentary PC links that for the past few years have delivered electronic mail to small groups of workers. Microcomputer networks are finally approaching PARC's more complex concept, in which computers on a network begin to work together intimately—as intimately as if they were all one machine. In computerese, it's known as the client-server model. With it, a client computer—a PC or workstation—becomes a window into an almost limitless array of computing resources dished up by server computers on the network. Those machines deliver information or perform special jobs that an ordinary PC can't.

The beauty of this setup is that, to the worker, it seems as if everything is happening right on his desktop. For example, when a Wall Street trader updates the spreadsheet on his client computer, several different servers—perhaps in other cities—are doing his bidding. Some collect reams of market data from different exchanges. A supercomputer might analyze them for arbitrage opportunities. Another would scan historical data bases, and yet another would pass the results back to the trader's desktop PC. This is managed automatically so the computer user doesn't have to think about where any of the work gets done.

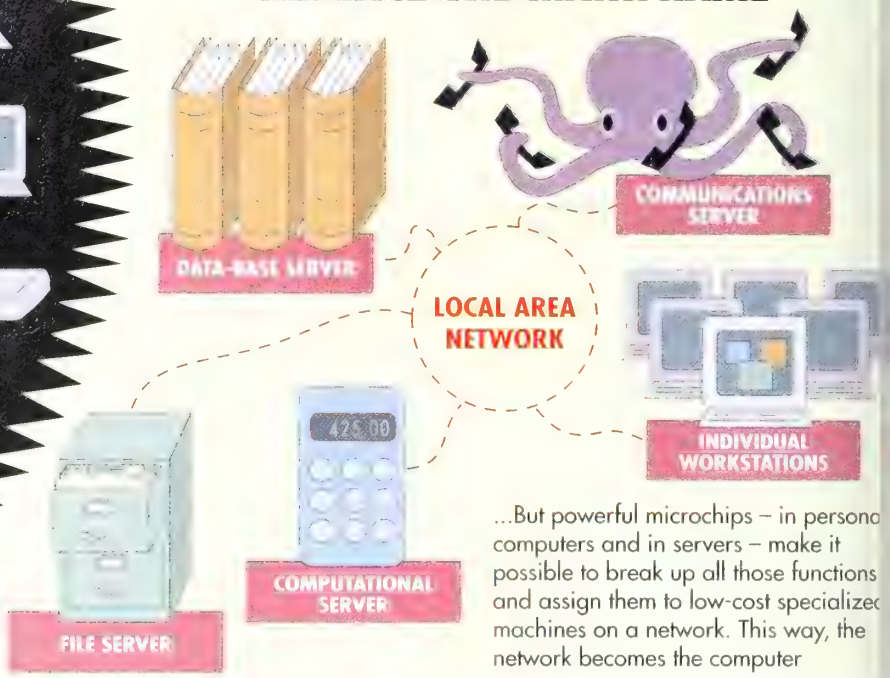
That kind of cooperative processing has long flourished in corporate engineering departments, where networks of Alto-like workstations have practically made minicomputers obsolete. Now, the same technology is poised to thoroughly reshape business computing, the last bastion of mainframes. Desktop computers are nearly ubiquitous in business, and many are more powerful than the Alto—workstations from Sun Microsystems, Hewlett-Packard, and Digital Equipment, for instance, and high-end personal computers from IBM, Compaq, and Apple. And networking software is finally getting robust enough for client-server setups.

What finally makes these networks possible are the new mainframe-caliber microprocessor chips such as Intel Corp.'s 80486, Motorola Inc.'s 68040, and the so-called RISC (reduced instruction-set computing) chips used in workstations. These megachips are the building blocks for a new class of servers—sometimes called "superservers"—that, along with new software, finally complete the network-computing puzzle. With mainframe speeds and enormous disk-drive capacity, they can store information for an entire company to share—and dole it out as needed to PCs in the factory, the warehouse, or the executive suite.

'IRRESISTIBLE FORCE.' In these servers, the microprocessor at last delivers on its astounding promise: to handle virtually every job that minis and mainframes do. And not just because of their enormous power and low cost. Since they are specialized, each microcomputer-based server can be tuned to excel at its assigned task—and to outdo a mainframe, which must do it all (illustration). "We're on the brink of a major crossover between micros and mainframes," says Charles E. Exley Jr., CEO and chairman of NCR Corp. "The microprocessor revolution is becoming an irresistible force. Ultimately, every business will want to move from their mainframes to microprocessor-based systems."

So convinced is Exley that he has made that proposition the basis for NCR's entire strategy. Within a few years, every computer in the NCR line—from PCs on up—will be based on one or more Intel microchips. Gone will be NCR's proprietary mainframe designs and any other machine that cannot run standard software and therefore plug easily into networks. The Dayton-based company is working closely with a small West Coast company, Teradata Corp., to build a new kind of computer from hundreds of Intel chips (p. 124). NCR's commitment to the Intel-based strategy, analysts say, makes it a good fit with American Telephone & Telegraph Co., which has taken almost the same route. Although neither company will comment, industry-watchers say the two companies have been talking for

HOW SERVERS, PCs, AND A NETWORK REPLACE THE MAINFRAME



several weeks about a possible acquisition, merger, or joint venture.

Both companies are in a position to do what IBM or DEC can't: totally overthrow the old order. Unlike their giant computer-market competitors, neither AT&T nor NCR has a huge installed base of proprietary mainframe and minicomputer systems. So they can sell micro-based network computing as the replacement for those older systems without damaging themselves.

'LOBOTOMY.' Minicomputers and mainframes aren't likely to die off quickly, but they aren't particularly suited to the new concept of networked computing, either. They're designed to control strings of "dumb" terminals rather than to work collaboratively with hundreds of other computers. As general-purpose processors, they handle in a single box all four main functions of a computer: communications with humans, communications with other machines, managing data files, and executing programs. Each second, a nightmarishly complex program called the operating system divides the processor's time among hundreds of tasks. Some large mainframes spend as much time switching among those tasks as they do getting work done. Upping the hardware's speed can make a mainframe more productive—but only to a point.

> 'The central-processor model doesn't make any sense anymore'
>
> **LARRY BOUCHER**
> Auspex Systems Inc.

Networks, the experts say, can beat out the mainframe in most applications by assigning tasks to specialized microcomputer servers. Simple work, such as word processing, is best done in workstations and PCs. Complex tasks, such as searching a massive data base, performing lengthy calculations, or routing electronic mail among hundreds of workers, can be assigned to their own servers. Says Larry Boucher, a former IBM mainframe engineer and co-founder and chief executive of Auspex Systems Inc., a Santa Clara (Calif.)-based server maker: "The central-processor model doesn't make any sense anymore. It has to change." Powerful micros, he says, finally make it possible to "give the [mainframe] operating system a lobotomy."

That gives the new high-powered servers the opportunity to take on the most critical mainframe function of all: storing the data that, in effect, defines the corporation. "The corporate jewels are the data," says Bruce J. Nelson, another PARC veteran who is now director of technology at Auspex.

'NASTY SECRET.' Simple PC networks have been around for years, relying on souped-up PCs as their central file cabinets. Yet even the fastest PCs, with the largest-capacity disk drives, have severe limitations when they are asked to serve too many desktop clients. "Slow performance," says Glenn R. Dinetz, director of American Management Systems Inc.'s PC-LAN consulting group. "That has been the nasty secret of PC networks." And nets could get even slower as they begin shuttling digitized images of documents. The digitized image of a typewritten page takes up 10 or even 100 times more computer memory than its normal, coded version.

So, in the past year or so, the market has seen a raft of specialized file servers that can reliably move data through a network to hundreds of PCs at a time. Compaq Computer Corp., NetFRAME Systems, and others have established a new class of microcomputer-based hardware. Compaq's $20,000 Systempro has received perhaps the most attention. Powered by one or two Intel 80486 chips, it can supply data to a network twice as fast as a regular 80486-based PC can. Depending on its software, it can send entire files or just certain items selected in response to complex queries. Just this month, IBM brought out a $14,145 ser-

ed the PS/2 Model also based on the est Intel 80486 chip. s James A. Canna-, vice-president and eral manager of s Personal Systems : "Now you start to able to get at the .. And applications would have been ggish or unusable are easy."

nat's what's making er shipments take "Servers are the af-hock of the desktop n," says Sam Bo-h, CEO of Torque puter Inc., a New York server mak-Forrester Research Inc., a market archer, pegged last year's server ket at $3.2 billion, including standard sold as servers. Forrester expects it row 30% annually, to $11.7 billion by . Most of that spending will go for servers, the rest for servers that orm tasks such as running laser ters or communicating with remote vorks. At the same time, mainframe minicomputer shipments are expect-rise only around 5% annually. Serv-are becoming "part of the customer lset," says James Fischer of Ander-Consulting. 'We're convinced they're answer to the future."

ne new market has attracted several tups, some with impressive funding. RAME Systems and Parallan, for in-ce, have raised more than $42 mil-between them. They, along with Tri-Systems Inc., are pushing further IBM and Compaq with so-ticated servers. Tricord says PowerFrame can achieve up 0 times the performance of paq's Systempro. It uses the e Intel chips as Compaq but them internally using a er-speed "bus," or data high-. The machine sells for about 00, says James D. Edwards, ord's president. In some , he adds, the Tricord ma-e has rivaled the performance $9 million IBM 3090-400 main-ne.

ot only are these new servers pensive, but they cost less to tain and upgrade. Most are around the standard hard-e formats developed by IBM its rivals. That means that on cards and disk drives de-ed for the PC, the IBM Person-ystem/2, or the so-called EISA nat (an alternative to IBM's 2 Microchannel) will fit the ers, too. Terry L. Martin, processing manager at

'Ultimately, every business will want to move from their mainframes'

CHARLES E. EXLEY JR.
NCR Corp.

Western General Services, recalls paying $19,000 for a used, 100-megabyte disk drive for a company minicomputer. The Chicago-based insurance-claims processor then switched to a PowerFrame server and 58 PCs and paid only $5,000 for a new, 1,200-megabyte drive. "There's no comparison," Martin says.

BETTER PROGRAMS. Software's another saving. PC programming tools—programs that provide shortcuts for programmers—"are far better" than those for mainframes, says Jim Johnson, executive director of management information systems at Fort Howard Paper Corp. He reckons a cost saving of "at least 10 times" for developing a new software function on PCs vs. writing it on a mainframe. And servers save support costs because they're generally easier to maintain than mainframes. "Customers are trying to reduce the number of people needed to support all their machines," says Gianluca U. Rattazzi, president and co-founder of Parallan, whose server can be monitored remotely.

Specialized servers are playing big roles in engineering networks, too, where the demand for increased performance is insatiable. Epoch Systems Inc.'s InfiniteStorage product, for instance, keeps masses of data on hand for instantaneous access. But it slashes costs by storing only the most frequently used files on costly, high-speed magnetic disks. The rest get moved automatically to slower-access but far-cheaper optical disks and magnetic tapes.

Startup Auspex is attacking another problem. Its NS5000 file server dishes out data so fast to workstations that they need only very small disk drives of their own—a big cost saving. The machine also replaces the weak file-handling functions of Unix, the standard software in workstations. Says CEO Boucher: "Servers are going to blow the doors off" traditional mainframes.

Perhaps no company believes that more fervently than NCR. By shifting completely to a product line of micro-based servers, personal computers, and the networks to connect them, the $6 billion company is making an uncharacteristically bold bid for technology leadership. It's NCR's big chance to shed its image as an also-ran in the corporate computing race so long dominated by IBM. "We're no longer a boring company," says Chairman Exley. With a broad product line based entirely on advanced microprocessors and industry standards, he says, NCR will help customers to "cap their investment" in aging mainframes. "No one has heard this story from any other supplier."

Certainly not from IBM or the other old-line mainframe companies. Networking computing's foundation in commodity microprocessors and standards means slimmer profit margins than traditional proprietary machines provide. NCR, though, risks little because it depends on proprietary mainframes for just 9% of its equipment and software revenues, Exley says. So it can afford to ride the microprocessor's plummeting cost curve. D. H. Brown Associates Inc., a Tarrytown (N. Y.) market researcher, reckons that microprocessor power

WHO'S SERVING UP SERVERS

AUSPEX	Stores files for Unix-based workstations
COMPAQ	Its Systempro functions as a general-purpose PC server
DIGITAL EQUIPMENT	Markets its VAX minicomputers as PC servers
EPOCH	Data storage servers and backup for Unix workstations
IBM	General-purpose PC and Unix servers
NETFRAME	Database servers for IBM PCs and compatibles
PARALLAN	General-purpose servers for IBM PCs and compatibles
SEQUENT	Unix-based transaction processing for networks
TORQUE	High-speed computation server for Apple Macintoshes
TRICORD	Stores files for IBM PCs and compatibles

DATA: BW

POWER QUADRANT

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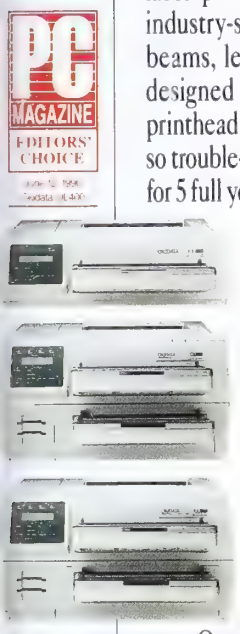

The OL400: The Only $999 Page Printer.

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The OL820 earned the Okidata OK by learning how to do font-scaling on the fly. Thanks to a special chip our engineers designed into the 820, it can solve complex type-sizing and positioning problems instantly—problems the LaserJet III needs to talk to its software to work out. That means the OL820 can deliver up to three pages of sophisticated text while the LaserJet III is still working on its first page.

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And for applications that require full Adobe PostScript® compatibility, our OL840 delivers it in spades. It's ready to connect to any PC or Macintosh® system, or to both at the same time—then switch between systems with the push of a button.

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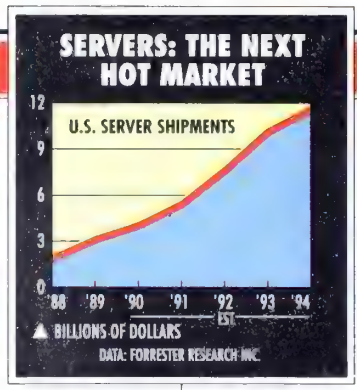


for the dollar increases by a staggering 32% per year. Mainframe customers are lucky to see a 15% improvement in performance for a fixed price each year.

Those economics have piqued the interest even of corporate computer managers—the generally conservative executives who have, for the most part, remained loyal mainframe fans. At Fort Howard Paper, "we're very eager to decelerate our spending on mainframes," says computer chief Johnson. The company recently bought a Tricord server to try out in its legal and public affairs departments. At retailer Burlington Coat Factory Warehouse Corp., a Sequent Computer Systems Inc. server and a network of micros has been brought in and an old mainframe is expected to be unplugged soon.

Still, computer chiefs aren't "betting the farm" yet on PCs and servers. Even with heavy-duty servers such as Tricord's, the technology is too new to be entrusted with critical and sensitive tasks such as payroll processing and financial accounting. And despite their higher costs, mainframes and minis will hang on for a while, if only because customers have invested billions of dollars in software for those machines.

That gives IBM, DEC, among others, more opportunity, so say their last, to sales of their outmoded centralized computing by, in effect, converting them to network servers. IBM, for instance, just brought software to give its System/370 mainframes the networking language used by most Unix-based workstations.

DEC, meanwhile, is pushing a software scheme called Network Application S

THE DINOSAUR THAT COST MERRILL LYNCH A MILLION A YEAR

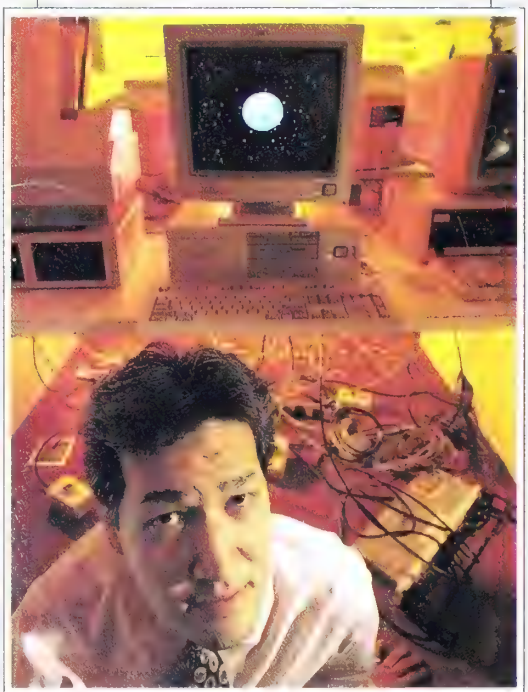
In 1987, Joseph Freitas had a radical idea—a least for someone who had always sworn by his mainframe. As director of investment banking systems for Merrill Lynch & Co., Freitas wanted to build a 13-city computer network based entirely on microprocessors. "We knew we were getting into uncharted territory," he says.

One of the most difficult parts of his quest involved finding the right software to manage the information flow over the new network. The challenge began when Freitas started phasing out the IBM mainframe that had served as the heart of his information system since 1983. Until this month, when Merrill gave the machine back to IBM, the firm had been paying $1 million per year in maintenance and leasing fees for it. "It became clearer and clearer that the system that was costing us the most money was actually the least useful," says Freitas.

DEALING OUT DATA. For several years, Merrill had been taking more and more work off the mainframe. By last year, it was doing little processing and was acting more as a central library that served information to 1,100 personal computers. Freitas realized that a computer designed to be a data base server could do that for far less. He bought a $500,000 system, based on multiple Intel microprocessors, from Sequent Computer Systems Inc.

To make the system work, he needed new software, which Saros Corp., a startup in Bellevue, Wash., designed for Merrill and a few other big computer buyers. The package, called Mezzanine, works like a library's card catalog, tracking what information is kept in each computer—no matter where it is on the network. The program also knows how to retrieve all that data.

On Merrill's network, Mezzanine keeps tabs on documents and distributes them. If a banker in London needs a prospectus that the catalog says is stored on a PC in Sydney, for example, he can simply grab it electronically. Without the catalog, "there would be no way of knowing if that document even existed," says Freitas.



FREITAS: FED-UP STAFFERS BEGAN THE SWITCH TO PCs

Tracking clients also required new types of software. Under the old system, every time a Merrill banker contacted one of the unit's thousands of clients, a secretary would type up a report, which then would be entered into the mainframe by a clerk. This often took days. So bankers began keeping their own data on PCs. But that rendered the central data base useless. "We had no reliable way to tell if someone visited a certain client yesterday," Freitas says.

Under the new system, reports entered on any PC are instantly made available to all the other PCs on the network. That's because a special program from Gupta Technologies Inc. automatically routes the information back to a central data base in New York, where it can be tapped by other computers on the network.

INSTANT UPDATES. When he couldn't buy the right networking package, Freitas rolled his own. Merrill programmers created Cicero, which works with Microsoft's Windows 3.0 graphics software. With Cicero, for example, a banker can ask for current and projected price-earnings ratios for five companies. The system then calls across the network for the latest earnings reports, gets price quotes from another source, and earnings projections from a third. This is done by bankers who don't know where each data base is.

Merrill believes its new network and software gives it an edge over many of its competitors. "Our survival depends on fast information and knowing how to analyze it," says Freitas. Indeed, at a time when the financial services business is reeling and Merrill itself is taking drastic cost-cutting measures, a cheaper and more efficient information system can't hurt.

By Evan I. Schwartz in New Yo

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TERADATA GETS MAGIC FROM A GANG OF MICROCHIPS

Last year on Thanksgiving weekend, K mart shoppers spurned a Victorian-style Christmas doll called Holiday Moments. It looked as if the giant retailer might get stuck with 36,000 of the $29.97 dolls. But a company computer began guiding store managers through a carefully calculated series of daily markdowns so that by Dec. 25, all but a few dolls were gone—and none for more than 25% off. The same computer also spotted a quick-selling $1.97 plastic ornament in time to order lots more. Fast action on just those two products increased K mart's bottom line by $250,000.

K MART'S CARLSON CAN TRACK EVERY ITEM

All this was done by ordinary Intel Corp. 80286 microprocessors—the kind used in $1,000 PCs. But at K mart's Troy (Mich.) headquarters, 254 of them are crammed into one computer made by Teradata Corp. of El Segundo, Calif. Working together on the same problem, they sift vast quantities of transactions each day. By spotting minute sales trends, the machine has become "irreplaceable," says K mart computer chief David M. Carlson.

NCR Corp. Chairman Charles E. Exley Jr. calls Teradata's design the future of mainframes. Indeed, Exley expects Teradata machines to be supermainframes at the top of NCR's all-micro line. The two companies this year set up a joint venture to advance Teradata's technique for efficiently coordinating the parallel activity of 1,000 or more chips. NCR also has hired Teradata co-founder Philip M. Neches.

NETWORK NEWS. Until now, Teradata's computers have been sold mainly as attachments to mainframes. They offload one of the most complex and time-consuming chores in commercial computing: discerning patterns in enormous volumes of data. Customers range from American Airlines, with eight machines, to AT&T and Citibank. Lately, Teradata has felt growing pains. With some customers postponing orders because of the economy, it lost $9 million on sales of $47 million last quarter.

For NCR, Teradata's massive data base-processing powers promise to do what its mainframes never could: sift the truckloads of data picked up by NCR supermarket scanners, cash registers, and banking terminals. That heap of data includes nuggets such as sales leads, but they have gone undiscovered. Exley expects networks to feed information on every transaction to servers with data base programs that instantly find answers to complex queries from top managers. Exley says such "real-time decision-making" is uneconomical on standard mainframes but will be a breeze on the new systems.

"It's clear that as we move toward large networks of computers, there needs to be a machine to feed data to all of the connected networks," says Marc G. Schulman, computer analyst for UBS Securities Inc. "That puts Teradata right in the center of it all."

K mart knows. Christmas profits "were significantly improved" because of the Teradata machine, K mart President Joseph E. Antonini has told his executives. Now, toy buyer Michael A. Covello has a better idea of what sells. Attention K mart shoppers: The new, 1990 Christmas doll is only $14.97.

By Larry Armstrong in El Segundo, Calif.

vices that makes its VAX minis into servers for many popular desktop computers. One convinced customer: accounting firm Coopers & Lybrand, which chose a large VAX to hold data for 2,500 PCs in its New York office. The VAX's main advantage, says Stephen C. Rood, manager of microtechnology: software powerful enough to serve that many PCs from a single location. Compaq Systempros, another option Coopers & Lybrand considered, were limited to serving just 255 PCs apiece.

What may really prolong the life of mainframe's life is software. The complexities of PC-server networking can be frightening, especially when customers mix gear from several suppliers. A simpler solution—for now—is to stick with one supplier, buy its various sizes of machine, and let it make the network connections. That is exactly what IBM has in mind with a scheme called Systems Applications Architecture—software standards and protocols that will eventually link all sizes of IBM machines.

PIECEMEAL PROGRESS. IBM, naturally, would keep the mainframe at the center of corporate networks. But the programming that's needed to form a "seamless" SAA network is not all in place. In the meantime, dozens of PC and network companies are hammering out standards to let all workstations and servers—from any supplier—work together. If that can be accomplished, customers will be able to improve their networks piecemeal as better technologies and products become available.

Trouble is, even as many suppliers boast of writing their software according to widely accepted industry standards, the products they ship often display bothersome peculiarities. "There are a lot of hairy issues to resolve between suppliers," says Auspex' Nelson.

Still, despite some confusion, the vision of network computing hatched at PARC is rapidly coming of age. Powerful microprocessors are creating the necessary servers and workstations. Equally important, the low price of these speedy machines provides a compelling economic reason for dispensing with the old ideas of how computer systems should be constructed. If these networked systems really do topple the mainframe as the mini, it will be the biggest change in data processing since ENIAC's vacuum tubes first added 1 and 1 to make 10—in binary, that is.

By John W. Verity in New York, with bureau reports

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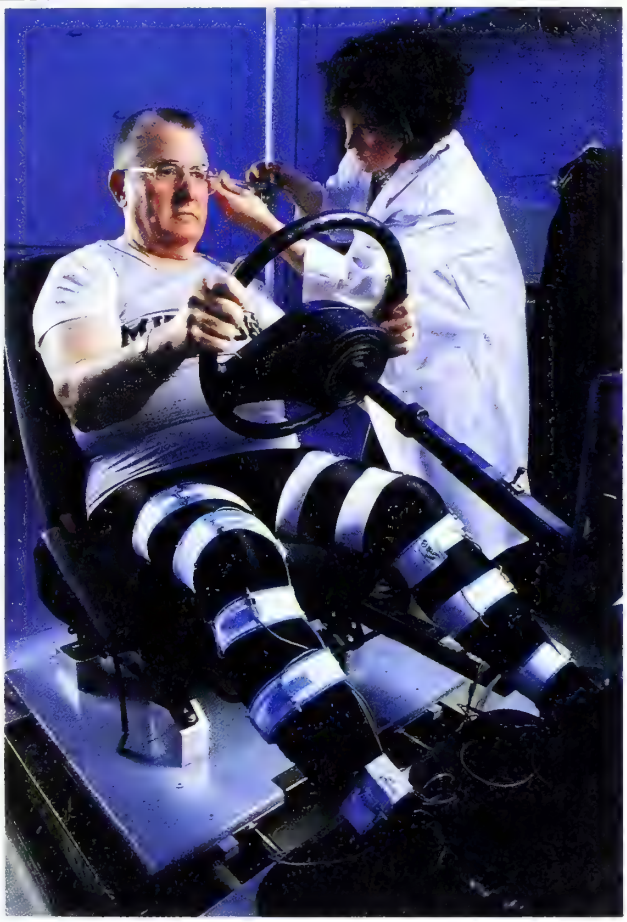
AN DETROIT HOLD TS LEAD IN SAFETY?

ter a slow start, Japan is closing in fast on U.S. carmakers

ee Iacocca started it. Last year, Japanese companies decided to meet gher U. S. safety ulations with motord shoulder harnesses t fasten automatical- around car occuts. Iacocca thought vers would prefer s bothersome air s, even though they t $400, vs. $100 for belts. So Chrysler hed them into its s, trumpeting the ture in sobering TV with such lines as: air bag saved my " Soon, Ford and GM said they would pt air bags by the -1990s. And this fall, da, Toyota, and Nisbelatedly did, too.

makes sense that ty should become a issue. For one g, it sells: In a re- BUSINESS WEEK/ris Poll (BW—Oct. 99% of those sured rated safety as ry important" or mewhat important" leciding which car to buy. But the anese have been uncharacteristically nquent, ceding Detroit the advan-. "They just don't seem to be in the ty race," says Brian O'Neill, presit of the Insurance Institute for High- Safety, a testing and lobbying up run by insurance companies. ut that judgment in the past tense. roit's lead partly reflects all the big it sells, an advantage that could ppear if rising gas prices shift sales maller cars. Already, Daimler Benz, V, Volvo, and Saab Scania are empha- g their own impressive safety fea- s in extensive ad campaigns. And ing in from behind are the Japanese, big converts to air bags and anti- brakes. Because the Japanese develop cars faster than Detroit, they could close the gap quickly. In short, as happened in performance and styling, a contest has started that will test whether Detroit can keep its edge in safety.



FORD DESIGNED ITS TAURUS WITH MATURE DRIVERS IN MIND

The push for safer cars is refining nearly every aspect of design. Air bags are just the start. Antilock brakes and traction control systems are expected to become common in all cars in the last half of the 1990s, with General Motors Corp. leading the pack. Chrysler's Imperial comes with a "hands-free" mobile phone built into its sun visor—safer for gabbing while motoring. Roll bars in Mercedes-Benz's new 560 SL convertibles pop up in 0.3 seconds if the car tips. Some Saabs and Volvos sold in Sweden blare radio weather alerts, even with the radio off: A remote transmitter signal turns the radio on. And companies have even fancier gizmos in the works: night vision display screens to eliminate blind spots, and electronic collision avoidance.

Tighter government rules aside, the carmakers are playing to demographics. Detroit is particularly attuned to the elderly, who tend to buy large American cars. Now, with baby boomers in their family-raising years, safety also is a key weapon in the Big Three's battle to win back under-40 buyers, nearly half of whom drive Japanese models. The Japanese are alarmed. Nissan Motor Co. recently set up a worldwide auto safety task force and is boosting its staff of safety engineers. "We've found that the baby boom generation is extremely concerned about safety," says Steve Barnett, a top strategist for Nissan North America Inc. in Torrance, Calif.

POOR MILEAGE. Whatever the motivation, carmakers have made dramatic gains since consumer activist Ralph Nader first made safety a big issue in the 1960s. Nearly every company has adopted Volvo's "safety cage" design, introduced in 1944, which reinforces the car's passenger compartment with steel sections along the roof, door pillars, and side rocker panels. GM and other carmakers now design hoods to fold up and engines to submarine in a frontal crash—rather than plow into the passenger compartment. Spare tires and air conditioners are designed to absorb energy as they crush.

It's getting harder to make such advances without adding weight and hurting gas mileage. In October, for instance, the National Highway Traffic Safety Administration (NHTSA) set new rules for protecting occupants in side-impact crashes. This will save an estimated 500 lives annually. It's a $90 change involving door beams and padding but will add 38 pounds per car, reducing fuel economy by a third of a mile per gallon. Many makers, including Ford, Volvo, Peugeot, and Toyota, are studying using costly front and back side air bags to keep weight down.

Another complication, notes W. Randall Edwards, Chrysler Corp.'s manager of safety programs, is that some safety features "drive stylists nuts." One example: To reduce deaths of pedestrians struck by cars, the NHTSA is expected to require that car hoods be designed with more "give." That means raising the hood two or three inches more above the engine—sort of like a 1949 Ford.

Still, car companies are finding creative ways to squeeze safety gains out of seemingly mundane changes. When Ford Motor Co. designed its Taurus in

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the early 1980s, it consulted a "mature-drivers advisory committee," which suggested positioning the Taurus' controls so that drivers with, say, arthritis, could use them without diverting their attention from the road. Ford is researching similar features for the Taurus' redesign, due in 1995. Chrysler plans to be the first to offer driver air bags in minivans, something of a technical feat: A minivan's steering column is more upright than a car's, and it tends to aim a bag at the driver's forehead.

Even seat belts can be improved. Many people find it uncomfortable to cinch belts tight. Daimler Benz's solution is a "pretensioner." In a crash, a small explosion, much like the ones used to inflate air bags, drives a piston that tightens lap and shoulder belts automatically. This ensures maximum restraint and positions the wearer in front of the car's air bag—making it more effective.

REAR WINDOW. In the long run, however, systems to help avoid crashes "promise the greatest returns in improving highway safety," contends Robert A. Rogers, GM's director of Automotive Safety Engineering. For example, 65-year-old drivers need nearly eight times as much light to see as clearly as 25-year-olds and their eyes adjust more slowly. Detroit is finding imaginative ways to compensate for that.

Since 1988, Ford has offered electrochromatic mirrors that automatically dim the glare of headlights from behind on its Lincoln Continental. And using military technology developed by its Hughes Aircraft unit, GM is working on vision systems that use infrared lighting to see at night and in fog. It's also developing rear-vision enhancements to alert drivers of obstacles behind them, and to help them sense other vehicles pulling into blind spots during highway driving.

Another military technology GM is adapting is its "heads-up" instrument display, which projects speedometer and other readings in a hologram that seems to hover over a car's hood. GM already offers this fighter-pilot technology on its sporty Olds Cutlass Supreme—figuring that its *Top Gun* cachet appeals to young male buyers. The display, however, is also ideal for people who wear glasses, especially bifocals. So holograms could show up on other GM cars.

Europe is ahead in integrating these technologies into so-called smart highways, which use road sensors that communicate with in-car computers to improve safety. Such a system might warn motorists to slow for an accident ahead, for instance. The European Community plans to invest $850 million over the next four years in its Prometheus project. Many U.S. executives scoff at all this. "To me, it's sci-fi, black magic, Disneyland," says Chrysler's Edwards. The U.S. has far less ambitious studies under way. A Japanese project is mainly aimed at reducing gridlock.

Japan has lagged behind on safety partly because its consumers are generally passive. Toyota Motor Corp. offers air bags on half its cars—but only 4% of buyers opt for them, although that partly reflects the option's $770 price. An advisory committee to Japan's Ministry of Transport has started work on reving the nation's vague car safety lav but its report isn't expected for months.

Even Japan has a nascent auto safe movement, though. Globalization of t car market is a major reason. A rece TV documentary by the national netwo NHK caused a furor when it reveal that cars for Japan's domestic mark are less safe than export models, lacki features such as reinforcing side bean Nissan, for one, is adopting U.S. safe standards worldwide.

Auto makers contend that they c only go so far in building safety in cars. The U.S. fatality rate is alrea among the lowest in the world, large because of good freeway design. To i prove on that, carmakers contend, mo attention must be paid to driver beha ior. Fewer than half of Americans buc le up—vs. more than 90% in Euro where seat belt laws are tougher. A systems that guard against drunk dr ing are ineffective. Drunks can have sober friend take built-in breathalyz tests, for instance. And they tend to nore systems that sound alarms.

Still, there's plenty of room to ma cars safer. Driver and passenger bags alone will reduce the U.S.'s 47,0 annual traffic deaths by an estimat 9,000. It's an old saw that cars can made accident-proof—as long as peo don't mind driving tanks. Nobody's ta ing about trading in the family sedan f a Sherman. But after years of payi little heed, consumers may be ready reward the companies that build saf cars.

By James B. Treece in Detroit, wi Larry Armstrong in Los Angeles, Kar Lowry Miller in Tokyo, Jonathan Kapste in Brussels, and Igor Reichlin in Bonn

BIG CARS ARE SAFEST

Rankings reflect the frequency of injuries as reported in medical insurance claims after accidents involving 1987-89 models, regardless of the size of the claim. For cars redesigned in those years, results cover only the new model **Index: 100 equals average**

THE TOP 10		THE BOTTOM 10	
Volvo 740/760 SW wagon*	40	Chevrolet Spectrum***	185
Lincoln Continental*	46	Hyundai Excel	174
Mercedes SEL/SDL Series*	48	Isuzu I-Mark***	173
Olds Custom Cruiser wagon**	49	Chevrolet Sprint*** #	173
BMW 735i*	49	Pontiac LeMans #	165
Mercedes 560SL Convertible* #	50	Subaru XT Coupe #	157
Cadillac Seville	52	Nissan Sentra**	154
Buick Electra wagon	52	Ford Festiva #	154
Mercury Grand Marquis wagon	52	Dodge Daytona #	151
Saab 9000	53	Subaru Justy #	150

Notes: *--When equipped with an airbag **--Redesigned for 1991 ***--Model has been discontinued #--2-Door Model

DATA: HIGHWAY LOSS DATA INSTITUTE

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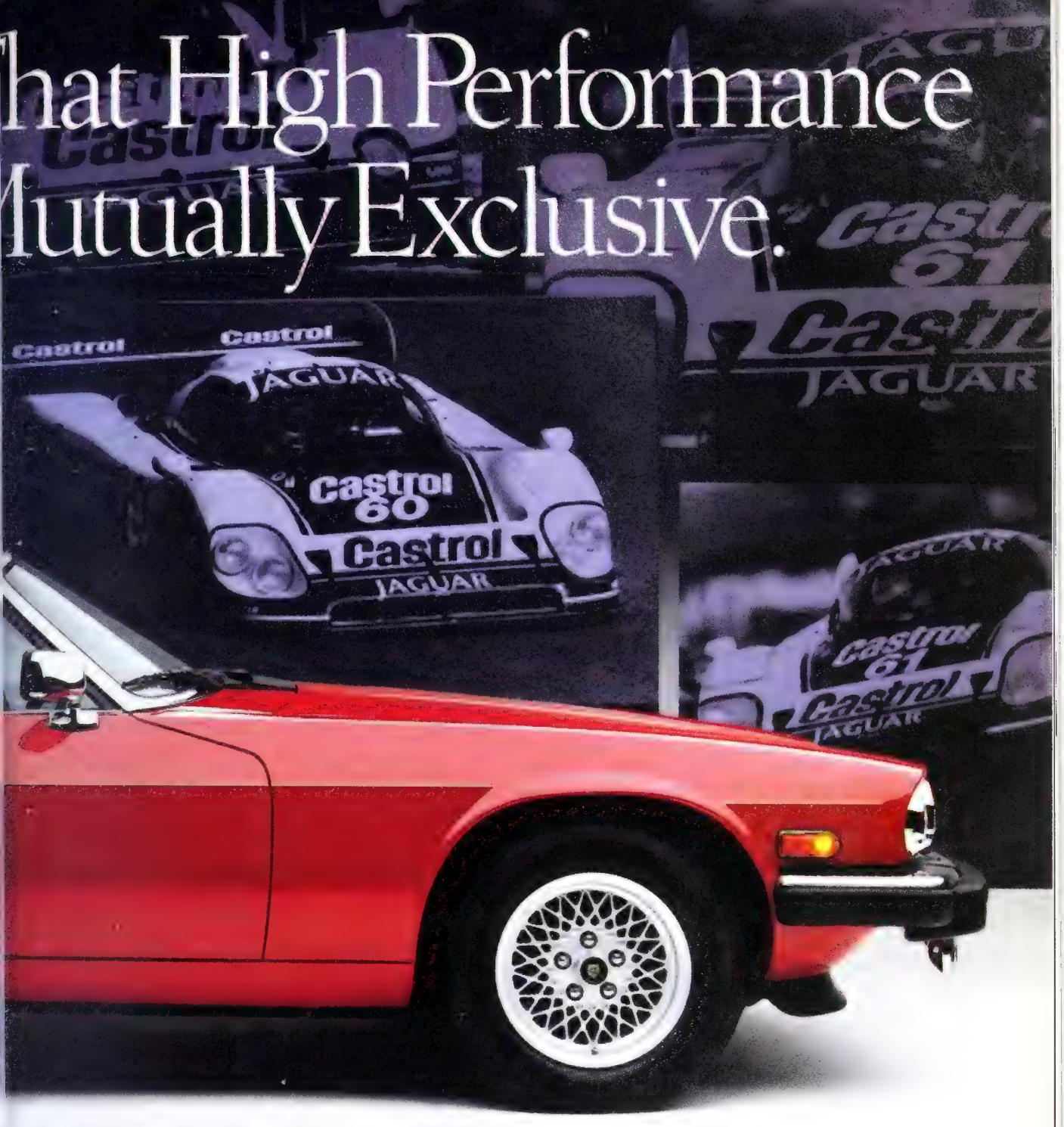

and refinement as for the 263 horsepower it erates. Modified for racing, it powered Jaguar to two victories in the world-famous 24-hour endur- races at Daytona and Le Mans this year.

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RETAILING: WHO WILL SURVIVE?

With too many stores and too few customers, chains must rethink the basics of their business

On a rainy afternoon in Chicago, two prosperous-looking, fashionably dressed women sip espresso in a coffee bar at Bloomingdale's. Marilyn Krafthefer, a mother with two children in college, recalls a recent trip to the Oakbrook Center mall: "I told my husband, 'Something's wrong. Nobody was at the shopping center.' It was kind of spooky."

Down in Florida, meanwhile, the Sawgrass Mills Mall is thriving. The 2 million-square-foot shopping center near Fort Lauderdale opened in October, and on a recent Saturday, it was packed. But shoppers were there exclusively for bargains—the mall's 160 stores are outlets where manufacturers offer deep discounts to sell off excess inventory. At some strip malls in the area, vacancy rates have been running at 15% to 30%. For them, the opening of Sawgrass Mills "is the final nail in the coffin," says David Dabby, senior vice-president of Appraisal & Real Estate Economics Associates, a Miami-based appraisal firm.

Going-out-of-business signs, bankruptcy filings, and constant sales attest to tough times in the retail industry. Such mercantile stalwarts as B. Altman and Garfinckel's have disappeared. The parent company of Bloomingdale's, Burdine's, and Rich's is in Chapter 11. Rumors abound about R. H. Macy & Co. and other potential casualties. Morale for many retail executives is rock bottom. "Retailing is not an area of hope," says Eugene Kosack, chief executive of NBO Stores Inc., a $100 million apparel chain. "It's not fun. It's almost a war."

And the casualties are almost certain to keep mounting. By the end of the '90s, predicts Carl Steidtmann, chief economist for retail consultant Management Horizons, half of the nation's current retailers will be out of business. "The total amount of space will contract," says Steidtmann. "The real marginal stuff will just be bulldozed."

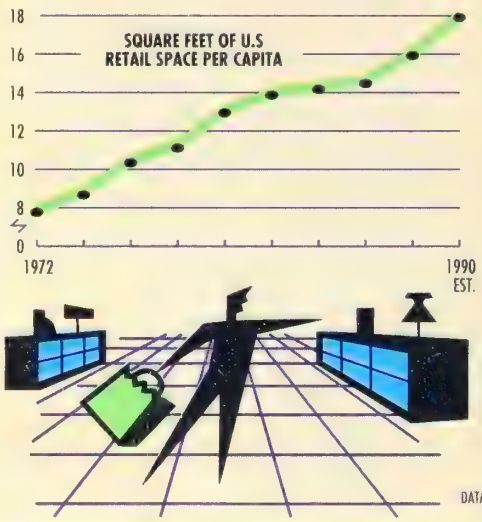
Who will be the survivors? Many in the business figure that such current successes as Dillard, The Gap, Wal-Mart Stores, and The Limited will eventually dominate retailing the way Macy's, Federated, and Sears once did. But even some of these powerhouses are experiencing slowing growth and are working on more innovations to keep pulling customers in. The companies that succeed will be the ones that avoid crippling levels of debt, focus tightly on specific customers or products, and hook into technology to hold down costs and enhance service. A tough act.

It isn't surprising that retailers are hurting these days. The economy is on the brink of a recession, and employers are announcing layoffs daily. Retail sales have been limping through the year, and the latest results for chain

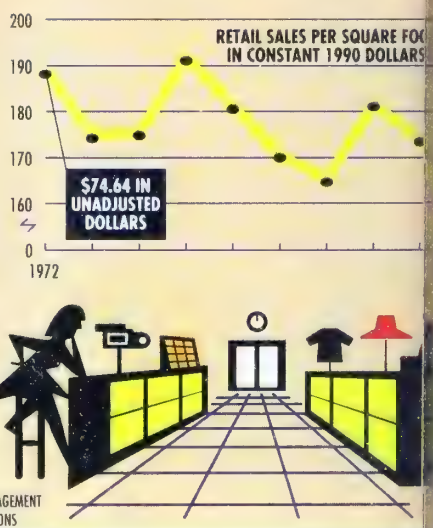
WHY MERCHANTS ARE MISERABLE

The pell-mell buying and building of the last decade has left America with too many stores. As one retail investment banker puts it: "The '80s made retailing a no-brainer." Now, with consumer confidence ebbing and bills coming due, retailers face a painful shakeout

STORE SPACE KEEPS GROWING...



...BUT SALES ARE NOT KEEPING PACE...



DATA: MANAGEMENT HORIZONS

are not encouraging. A few, such as The Gap Inc., are reporting double-d same-store sales gains. But at Se Roebuck & Co. and J. C. Penney October same-store sales slumped: P ney's third-quarter earnings drop 36%, to $134 million. Even for May partment Stores Co., one of the best partment store chains, same-store sa barely budged upward. At another p erhouse, The Limited Inc., they slip 1%. "It's not as if the customer slowed down his spending," says N Kosack. "He has just gone home."

'hen there's the debt overload: The 30 retailers owe more than $60 bil- (chart), on which it is paying interest es as high as 16.5%. Two giants, Fed- ted-Allied and R. H. Macy, alone ac- nt for more than $13 billion of the t. The two went on a binge of price- ing last Christmas—before Federat- Allied filed for bankruptcy protec- n—that triggered a promotional tdown throughout the industry. Re- ers and vendors are still recovering n that Yuletide misery. Finding few ouraging signs in October chain store ilts, most are bracing for a repeat holiday.

MORE SPREES. A BUSINESS WEEK/ ris Poll confirms this fear. Of those veyed, 54% said they expect to buy this holiday than last year. The poll highlights another big headache for ailers. Overall, 47% said they are ading less time shopping (page 144). reason for this is demographic. The ne shopping population is aging, with time and less money than most of r parents had. Says Francesca Tur- no, consultant and president of In t, a New York-based market re- ch firm: "Baby boomer families are n debt-stressed, time-stressed, and in ch of quiet downtime." The upshot, Turchiano and other market re- chers, is that consumers are grow- more cautious and a lot less interest- in flashy consumption. As shop-till- -drop sprees lose their appeal, ing such reluctant customers into es will get tougher.

ut one huge problem looms over all others: overcapacity. There's just too h retail space—more than 18 square for every man, woman, and child, e than double the figure of 1972 rt). Adjusting for inflation, average sales per square feet have declined after rising through much of the 1980s. "There's no question that we are overstored," asserts Gilbert Harrison, a retail investment banker based in New York. "There's a limit to just how much retailers can offer." This buildup of excess capacity was a long time in the making.

THE U.S. HAS 18 SQUARE FEET OF RETAIL SPACE FOR EVERY MAN, WOMAN, AND CHILD. THAT'S TWICE THE AMOUNT IN 1972

The malling of America started in the 1950s as families flocked to the suburbs. Through the '70s, malls expanded. Specialty retailers, such as The Gap and The Limited, opened up stores for their moderately priced apparel. Their smaller, more accessible spaces chipped away at the department stores' franchise. But nobody suffered too much, since demand remained brisk: On average, overall retail sales in the '70s grew a healthy 8.6% annually, according to Rosalind Wells, the chief economist for the National Retail Federation.

In the go-go '80s, the good times kept rolling as the service economy flourished, baby boomers indulged themselves, and consumer spending soared. "I was suprised by how easy it was to be successful in the 1980s," says Gordon I. Segal, president and founder of Crate & Barrel, a chain of home furnishing and houseware stores. New formats, including "category killers" such as Home Depot and Circuit City, drew shoppers with low prices and huge inventories. Many department stores prospered as millions of women took their first office jobs and acquired new wardrobes.

The frenzy seemed to peak in 1987. That year, shoppers bought more apparel than ever, and store construction seemed to be the road to riches. The prospect of scoring 25% returns by investing in malls attracted billions from pension funds, banks, and freewheeling savings and loans. They weren't the only ones drawn to the honey pot: Campeau Corp. and Hooker Corp., two foreign developers-turned-takeover-artists, borrowed billions to buy the Federated, Allied, and B. Altman chains to use in their own new malls. To lure department stores as key tenants, other developers offered ever more generous incentives and subsidies.

In retrospect, all the development appears to have been way out of line with the realities of the retail business. "There was too much money around," says mall developer Herbert Simon of Melvin Simon & Associates. "It was like watching a train wreck," says Kelt Kindick, a real estate specialist at Bain & Co., a Boston-based management consultant. "Everyone could see it coming."

Between 1986 and 1989, the number of malls increased 22%, to 34,683. But the number of shoppers going to malls every month rose only about 3%, according to the International Council of Shopping Centers, the industry trade group. In one stretch at the Tysons Corner malls outside Washington, D. C., eight department stores compete against one another in a half-mile area. Meanwhile, catalog companies are creating their own glut by mailing up to 14 billion pieces of mail a year, up from 7 billion 10 years

ago. "You could close whole department stores and no one would go without clothes," says Walter K. Levy, a New York consultant to retailers.

Closing unproductive stores is actually one strategy retailers are trying. Macy's has announced it will shutter one I. Magnin location in Chicago and a Bullock's in Palm Springs. Two other I. Magnin stores may go. Bloomingdale's has closed locations in Stamford, Conn., and Dallas. Bloomie's parent, Federated-Allied, says it plans more store closings. Federated, Macy's, and many other chains are also reducing store inventories to make sure they do not have too much merchandise on hand to mark down should Christmas business be as poor as many expect. "We're prepared for really bad business," says Macy's chief executive, Edward S. Finkelstein, who denies rumors that Macy's will have to file for Chapter 11 after Christmas.

Developers are being squeezed in other ways. Capital for projects is drying up now that many S&Ls are in the hands of government administrators, and ev healthy banks and thrifts are operati under tighter lending scrutiny. The nu ber of shopping-center startups dropp 41% in the third quarter from the ye before. In Indianapolis, Melvin and H bert Simon have had to promise pers ally to reimburse many of the cit costs if their $970 million Circle Cent Mall does not get built.

While keeping an eye on the imme ate concerns about the economy a Christmas sales, retail executives a

VOICES FROM THE FRO

Most retailers and industry observers agree that their business faces wrenching change. But they offer a variety of reasons for the shakeout and sketch different visions of the '90s. Here are the assessments of some key players:

FINKELSTEIN: "WE HAVE A CONSUMER BASE"

SHERN: "IT'S NOT ENOUGH TO HAVE A GREAT P

MACY'S FINKELSTEIN

Want to get on Edward S. Finkelstein's bad side? Tell him department stores are going the way of the Nehru jacket. The CEO of Macy's has been struggling under $5.6 billion in debt since taking the retailer private in 1986.

But Finkelstein, a Harvard MBA who has spent more than 40 years at Macy's, thinks the downturn is just a phase: "The industry isn't in transition. The consumer is spending less. If the merchandise we're offering is fresh and the plant equipment is good, it's sheer nonsense to talk about Macy's in terms of survival. We have a consumer base." He bristles at the suggestion that the retailer's straitened finances have cut into its service: "How is the customer affected by our debt? We have more salespeople now than ever before."

Finkelstein has opened some specialty stores, but he's betting that shoppers will always favor his giant emporiums for their wide variety of goods: "O. K., maybe I'm a little feisty and argumentative about it. I've lived through an awful lot of periods when people predicted the demise of department stores. There's no replacement for the department store."

LIZ CLAIBORNE'S CHAZEN

The CEO of Liz Claiborne would seem to have few worries: Years of double-digit earnings gains have made his company one of the nation's biggest apparel makers. But Jerome A. Chazen isn't taking chances. He has opened 11 Claiborne stores. He says the foray into retailing keeps him in touch with customers. It could also be a hedge in case any of his big department store outlets go under.

Chazen lays the woes of some big department stores on their balance sheets: "They have these huge debt payments that don't allow them to make mistakes." The more fundamental issue is the store glut: "I don't think the entire U. S. needs another store, but they keep building them. It doesn't stop. I'm sure there are a lot of bad decisions being made."

Chazen thinks a few casualties may actually have a salutary effect: "If [retailers] do eventually tumble and have to be rebuilt, they'll understand that the new mode is an attitude of service that they'll have to adapt and project."

ERNST & YOUNG'S SHERN

An accountant and director of retail practice at Ernst & Young, Stephanie M. Shern has been scrutinizing balance sheets of retailers for two decades. She says bottom lines, not hemlines, will determine who survives: "It's not enough to have a great product days. If you can't ma your costs and keep you roll in line, I think it's go be much more difficult."

Retailers must also more attention to demog ics: "Every part of the co really is different, with differences in how p dress, where people go dinner. That dictates dif shopping habits." The up Homogenized national will find the going t while stores such as strom that cater to re tastes will succeed. Shern: "Nordstrom is na but not really. They try derstand the local marke

Knowing your cust Shern adds, is also the k success for shopping Developers are using sive consumer research the right mix of stores: days of the mall develope

xiously looking for long-term strate-es. The consensus is that retailers who ilt their original franchise around the ɔad middle range of the market are ɔst at risk. One reason, say some econ-ists, is that income has been shifting ay from the middle class, reducing purchasing power of these crucial ɔppers by billions of dollars.

Sears' woes reflect those of a lot of ddle-of-the-road merchandisers. It has en struggling for years to defend its rket against a host of competitors ch as Circuit City and Home Depot, ich offer enormous selection in one category, and Wal-Mart, which offers a broad range of goods at low prices. "Department stores are like battleships in the Suez Canal," says William Flatley, a principal at consultants Kurt Salmon Associates. "Anybody can take a potshot at them." Adds Dayton Hudson Chief Executive Kenneth A. Macke: "The second-tier stores will have great difficulty."

To avoid second-tier status, some department stores will keep trying to emphasize their own specialties. Allen I. Questrom, Federated-Allied's chairman, wants to capitalize on his furniture departments—areas that other stores have abandoned. J. C. Penney is pushing hard to boost its apparel image, adding marble floors and wood paneling to its stores and offering upscale labels, such as Harvé Bernard. At the Penney's in Dallas' NorthPark Center, the average price of women's career dresses is $105, up 50% from two years ago.

Dayton Hudson's Macke is trying out the better-service doctrine made popular by Nordstrom Inc.'s department stores. His suburban store in Southdale, Minn., now offers coatrooms, complimentary coffee, free local phone calls in the dressing rooms, and even diaper-chang-

V THE PROS SEE THE '90s

E'RE IN FOR A TREMENDOUS PERIOD OF CONSOLIDATION"

WINTOUR: "DRESS FOR LESS"

g space and not doing ing else are over. If all they do, they will e like a house of cards."

EGEL'S A

n J. Shea doesn't say etailing's loss is the cata-dustry's gain. Indeed, as f Spiegel Inc., he oper-nore than 200 stores. But g catalog sales are at the of his prediction that el's sales will grow from billion to $5 billion by Shea says that more ng women, the price of nd consumer frustration malls guarantee that people will shop by mail. a admits that even an ex-ng market can't absorb e new players. "We're in tremendous period of lidation," he says. "The mailboxes have had to get a little wider to hold all the new catalogs."

The key to success? Pinpointing your customer. Shea is pouring money into data bases to find out who buys from Spiegel. That way, he can avoid mailing to poor prospects. He also feels it gives him an edge over department stores: "Most retailers will take your money and let you walk out the door. We talk to our customers."

FINANCO'S HARRISON

Gilbert W. Harrison knows all about the Roaring '80s. As chairman of Financo Inc., a top retail-investment bank, Harrison was part of several deals of the decade: Campeau Corp.'s purchase of Federated Department Stores and Kohlberg Kravis Roberts' leveraged buyout of Stop & Shop. So why is the party over? "The problem with the '80s is that people thought trees grew to the heavens," Harrison says. "Too much leverage choked off cash flow."

No surprise there. But Harrison offers another, bleaker reason. Middle-class shoppers were K. O.'d by massive income redistribution: "The buying power of the middle class isn't there." Even after retailers get their books in order, he says, the heyday won't return.

In Harrison's view, a harsher climate favors established players such as Toys 'R' Us and J. C. Penney: "It's much tougher for a small retailer to survive. The cost of operating a business has grown. Rents are getting higher. Leases are getting shorter." The drive for lower costs will also affect malls, he says, with strip malls gaining favor over more expensive enclosed malls. These strip malls will be more upscale, though, as big-name retailers start entering them. "They're developing into power malls with power players," says Harrison.

VOGUE'S WINTOUR

Anna Wintour is an avid diviner of the fashion zeitgeist. These days, it's telling her: chic, but cheap. As editor-in-chief of *Vogue*, Wintour is pushing for an emphasis on price as well as style. Among her innovations: "Dress for Less" and, new this December, "Vogue's Great Buys"—features that showcase stylish clothing at reasonable prices. Says Wintour: "We want to reassure people that you can look as in vogue for $100 as you can for $10,000."

Retailers became complacent in the '80s, she says, because shoppers were less discriminating. "There's nothing attractive about walking into a department store and seeing 2,500 black dresses all thrown together, even if they are expensive," says Wintour. Stores, she adds, must pay more attention to service.

And while Wintour thinks the '90s will be more sober, that doesn't mean fashions by Cotton Mather. "There's a certain image that doesn't seem appropriate now," she says. "On the other hand, I don't believe that everything has to be gloomy and dreary."

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ing facilities in both the men's and women's restrooms.

Department store executives and other retailers also are betting on technology to give them an edge. Dillard Department Stores, one of the strongest chains financially, has set up a "quick response" system. According to a report by consultant Walter Loeb, this sophisticated computer software links the stores directly to more than 200 of its vendors so they can respond quickly to demands for more inventory from store managers. Since installing the system, Dillard's gross margins in such categories as Levi's jeans have grown more than 10%. Wal-Mart and Home Depot use similar systems, while The Limited uses a satellite to speed orders from its Asian factories.

WAREHOUSE CLUBS. Department store executives are not the only retailers who have to think about redefining their formats in the 1990s. Wal-Mart Stores was the success story of the '80s: Its sales grew from $8.5 billion in 1985 to an estimated $33 billion this year. To keep up that growth, though, Wal-Mart plans to open new types of stores. Yet, one closely watched Wal-Mart experiment with European-style "hyper-marts" fell short of expectations: The company's four enormous hypermarts did not generate the margins expected, and Wal-Mart has no immediate plans to build more.

Wal-Mart still needs new avenues of growth. So the company is now pushing hard into membership warehouse clubs, a deep-discount category that could become one of the key formats of the '90s. Shoppers pay a small annual membership fee for access to a warehouse-size store full of name-brand household items at very low prices. Wal-Mart just expanded its size in this $22 billion market by agreeing to buy The Wholesale Club's 27 warehouse stores and add them to its own 141 Sam's Clubs.

Just as Wal-Mart is working on the next big format, other retailers are huddling with developers on new ways to bring back customers. One approach is to make shops more accessible. The Gap is working with a developer to build a miniature mall in Wheaton, Ill. There The Gap will set up its clothing store in a small "town square" format, with about 50 other specialty shops taking up some 180,000 square feet. The big regional malls, by contrast, usually have more than 100 shops, as well as two or three department stores, and can occupy millions of square feet. Says Gap Chairman Richard E. Fisher: "You don't need a major department store to anchor projects."

Another increasingly popular strategy to entice bargain-hungry shoppers is the outlet mall, where makers of brand-name apparel and some upscale retailers sell their surplus goods. This idea, developed about 10 years ago, is quickly catching on and growing more refined. At Franklin Mills in North Philadelphia, sponsored by Western Development Corp., such class names as Saks Fifth Avenue are featured—and, unlike older outlet malls, shoppers are offered such amenities and amusements as a food court and a bowling alley.

The Gap's Wheaton approach, whose smaller size aims to cut down on shopping hassles, and the outlet malls, which offer the best prices on brand names, are attempts to address the fact that Americans may never regain their shopping élan. Market researchers are predicting that even when the economy strengthens and consumers become more confident, they aren't going to be racing to the stores with their wallets open.

There are several reasons for this reluctance. One is that Americans already have spent so much on expensive apparel and gadgets. "You haven't touched your bread machine and *gelato* machine in six months," says Susan Haywas, senior vice-president at research firm Yankelovich Clancy Shulman, "so you decide you don't need another one."

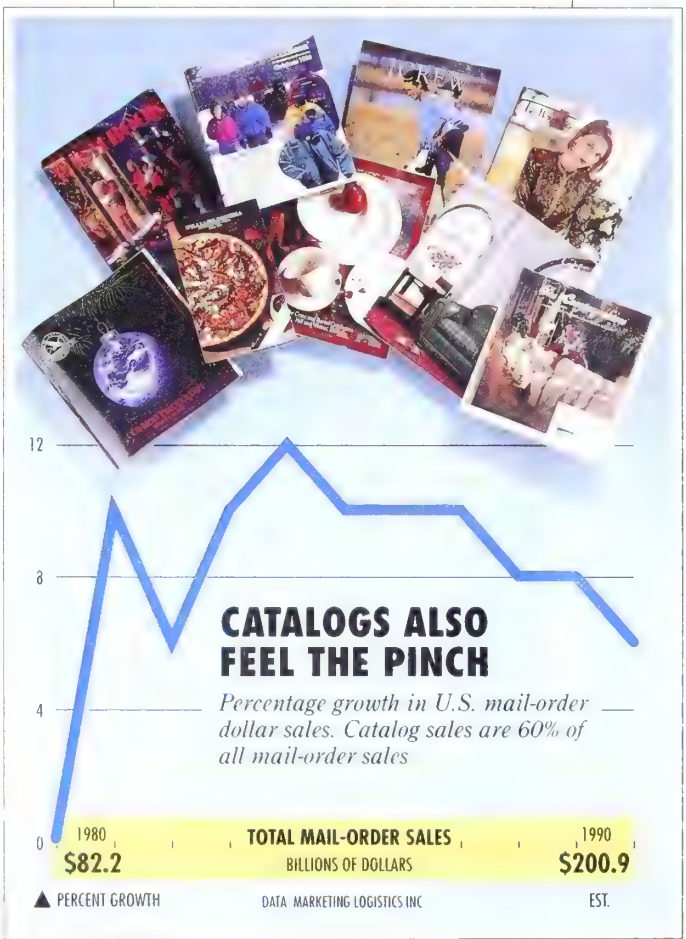
Another reason: Older shoppers, who are increasing in number, complain that stores still cater too much to young tastes. "The boutiques in the malls aren't for middle-aged people," says Ruthellen Schulman, 52, a portfolio manager at AT&T Credit Corp. in New Jersey. "I used to be a great shopper. Now, I stick with what I have."

And in the baby boom generation, many shoppers are finding that they just don't equate shopping with pleasure anymore. Says Jan Coats, a 34-year-old freelance writer and mother of twins in Plainsboro, N. J.: "Ten years ago, I could shop alone, and it was a leisurely thing. Now I have two toddlers with me, and it's a nerve-shattering experience."

Even retailers acknowledge that consumers are harried. "Shopping used to be an excursion," says Robert B. Cl, vice-chairman of J. C. Penney. "Now it's a job." And not a very pleasant job at that. In a recent survey of women shoppers by MAS Marketing, a Chicago-based market research firm, 80% viewed shopping as annoying but necessary.

Attracting and keeping these stressed-out consumers with advanced computer systems, better service, and innovative formats will cost plenty. For many highly leveraged companies, such as Macy's and Federated-Allied, the crucial question is whether over the long term they can afford the capital expenditures necessary to compete.

STAYING POWER. The pressure, meanwhile, will remain intense. Although capital for new malls is drying up, some developers are pushing ahead with projects already in the works. The Mall of America, which Melvin Simon & Associates hopes to open in September, 19 in the Minneapolis suburb of Bloomington, will be the world's largest m with some 4.5 million square feet. Despite the wealth of stores in the ar



modium (*Plasmodium vivax*) that induces paroxysms at 48-hour intervals

viverrid \vī-'ver-əd\ *n* [NL *Viverridae*, fr. *Viverra*, type genus, fr. L *viverra* ferret] (1902) : any of a family (*Viverridae*) of carnivorous mammals (as a civet, a genet, or a mongoose) that are rarely larger than a domestic cat but are long, slender, and like a weasel in build with short more or less retractile claws and rounded feet — **viverrid** *adj*

vivers \'ve-vərz, 'vī-\ *n pl* [MF *vivres*, pl. of *vivre* food, fr. *vivre* to live, fr. L *vivere*] *chiefly Scot* (1536) : VICTUALS, FOOD

Vivi•an *or* **Vivi•en** \'viv-ē-ən\ *n* : the mistress of Merlin in Arthurian legend — called also *Lady of the Lake*

vivid \'viv-əd\ *adj* [L *vividus*, fr. *vivere* to live — more at QUICK] (1638) 1 : having the appearance of vigorous life or freshness : LIVELY ⟨~sketch⟩ **2** *of a color* : very strong : very high in chroma **3** : producing a strong or clear impression on the senses : SHARP, INTENSE; *specif* : producing distinct mental images ⟨a ~ description⟩ **4** : acting clearly and vigorously ⟨a ~ imagination⟩ *syn* see GRAPHIC — **viv•id•ly** *adv* — **viv•id•ness** *n*

vivi•fic \vī-'vif-ik\ *adj* [L *vivificus*] (1551) : imparting spirit or vivacity

vivify \'viv-ə-ˌfī\ *vt* **-fied; -fy•ing** [MF *vivifier*, fr LL *vivificare*, fr L *vivificus* enlivening, fr. *vivus* alive — more at QUICK] (1545) **1** : to endue with life or renewed life : ANIMATE (rains that ~ the barren hills) **2** : to impart vitality or vividness to (concentrating this union of quality and meaning in a way which *vivifies* both — John Dewey) *syn* see QUICKEN — **viv•i•fi•ca•tion** \ˌviv-ə-fə-'kā-shən\ *n* — **viv•i•fi•er** \'viv-ə-ˌfī-ə(r)\ *n*

vivipar•ity \ˌvī-və-'par-ət-ē, ˌviv-ə-\ *n* (1864) : the quality or state of being viviparous

vivip•a•rous \vī-'vip-(ə-)rəs, və-\ *adj* [L *viviparus*, fr. *vivus* alive + *-parus* -parous] (1646) **1** : producing living young instead of eggs from within the body in the manner of nearly all mammals, many reptiles, and a few fishes **2** : germinating while still attached to the parent plant (the ~ seed of the mangrove) — **vivip•a•rous•ly** *adv*

vivisect \'viv-ə-ˌsekt\ *vb* [back-formation fr. *vivisection*] *vt* [1864] : to perform vivisection on ~ *vi* : to practice vivisection — **vivi•sec•tor** \-ˌsek-tər\ *n*

vivi•sec•tion \ˌviv-ə-'sek-shən, 'viv-ə-ˌ\ *n* [L *vivus* + *E section*] (1707) : the cutting of or operation on a living animal usu. for physiological or pathological investigation; *broadly* : animal experimentation esp. if considered to cause distress to the subject — **vivi•sec•tion•al** \ˌviv-ə-'sek-shnəl, -shən²l\ *adj* — **vivi•sec•tion•ist** \-'sek-sh(ə)nest\ *n*

vixen \'vik-sən\ *n* [(assumed) ME (southern dial.) *vixen*, alter. of ME *fixen*, fr. OE *fyxe*, fem. of *fox*] (bef. 12c) **1** : a female fox **2** : a shrewish ill-tempered woman — **vix•en•ish** \-s(ə-)nish\ *adj*

visard \'viz-ərd, -ˌärd\ *n* [alter. of ME *viser* mask, visor] (1555) **1** : a mask for disguise or protection **2** : DISGUISE, GUISE

visca•cha *var of* VISCACHA

vizier \və-'zi(ə)r\ *n* [Turk *vezir*, fr. Ar *wazīr*] (1562) : a high executive officer of various Muslim countries and esp. of the former Turkish Empire — **vi•zier•ate** \-'zir-ət, -'zi(ə)r-ˌāt\ *n* — **vi•zier•ial** \-'zir-ē-əl\ *adj* — **vi•zier•ship** \-'zi(ə)r-ˌship\ *n*

visier *var of* VISOR

vizsla \'vizh-ˌlō\ *n* [*Vizsla*, Hungary] (ca. 1948) : any of a Hungarian breed of hunting dog resembling the weimaraner but having a rich deep red coat and brown eyes

V-neck *n* (1905) : a V-shaped neck of a garment — **V-necked** *adj*

vo•ca•ble \'vō-kə-bəl\ *n* [MF, fr. L *vocabulum*, fr. *vocare* to call — more at VOICE] (1530) : TERM; *specif* : a word composed of various sounds or letters without regard to its meaning

vo•cab•u•lar \vō-'kab-yə-lər, və-\ *adj* [back-formation fr. *vocabulary*] (1608) : of or relating to words or phraseology : VERBAL

vo•cab•u•lary \vō-'kab-yə-ˌler-ē, və-\ *n, pl* **-lar•ies** [MF *vocabulaire*, prob. fr ML *vocabularium*, fr. neut. of *vocabularius* verbal, fr. L *vocabulum*] (1532) **1** : a list or collection of words or of words and phrases usu. alphabetically arranged and explained or defined : LEXICON **2 a** : a sum or stock of words employed by a language, group, individual, or work or in a field of knowledge **b** : a list or collection of terms or codes available for use (as in an indexing system) **3** : a supply of expressive techniques or devices (as of an art form)

vocabulary entry *n* (ca. 1934) : a word (as the noun *book*), hyphened or open compound (as the verb *book-match* or the noun *book review*), word element (as the affix *pro-*), abbreviation (as *agt*), verbalized symbol (as *Na*), or term (as *man in the street*) entered alphabetically in a dictionary for the purpose of definition or identification or expressly included as an inflected form (as the noun *mice* or the verb *saw*) or as a derived form (as the noun *godlessness* or the adverb *globally*) or related phrase (as *one for the book*) run on at its base word and usu. set in a type (as boldface) readily distinguishable from that of the lightface running text which defines, explains, or identifies the entry

vocal \'vō-kəl\ *adj* [ME, fr. L *vocalis*, fr. *voc-*, *vox* voice — more at VOICE] (14c) **1 a** : uttered by the voice : ORAL **b** : produced in the larynx : uttered with voice **2** : relating to, composed or arranged for, or sung by the human voice (~ music) **3** : VOCALIC **4 a** : having or exercising the power of producing voice, speech, or sound **b** : EXPRESSIVE **c** : full of voices : RESOUNDING **d** : given to expressing oneself freely or insistently : OUTSPOKEN **e** : expressed in words **5** : of, relating to, or resembling the voice (~ impairment) — **vo•cal•ly** \'vō-kə-lē\ *adv*

vocal *n* (1582) **1** : a vocal sound **2** : a usu. accompanied musical composition for the human voice : SONG; *also* : a performance of such a composition

vocal cords *n pl* (ca. 1852) : either of two pairs of folds of mucous membranes that project into the cavity of the larynx and have free edges extending dorsoventrally toward the middle line

vo•calic \vō-'kal-ik, və-\ *adj* [L *vocalis* vowel, fr. *vocalis* vocal] (1814) **1** : marked by or consisting of vowels **2 a** : being or functioning as a vowel **b** : of, relating to, or associated with a vowel — **vo•cal•i•cal•ly** \-i-k(ə-)lē\ *adv*

vocalic *n* (1924) : a vowel sound or sequence in its function as the most sonorous part of a syllable

vo•cal•ism \'vō-kə-ˌliz-əm\ *n* (ca. 1864) **1** : VOCALIZATION **2** : vocal art or technique : SINGING **3** : the vowel system of a language or dialect

vo•cal•ist \'kə-ləst\ *n* (1834) : ¹SINGER

vo•cal•ize \'vo-kə-ˌliz\ *vb* **-ized; -iz•ing** *vt* (1669) **1** : to give voice to : UTTER; *specif* : SING **2 a** : to make voiced rather than voiceless : VOICE **b** : to convert to a vowel **3** : to furnish (as a consonantal Hebrew or Arabic text) with vowels or vowel points ~ *vi* **1** : to utter vocal sounds **2** : SING; *specif* : to sing without words — **vo•cal•iza•tion** \ˌvō-kə-lə-'zā-shən\ *n* — **vo•cal•iz•er** \'vō-kə-ˌlī-zər\ *n*

vo•ca•tion \vō-'kā-shən\ *n* [ME *vocacioun*, fr. L *vocation-*, *vocatio* summons, fr. *vocatus*, pp. of *vocare* to call — more at VOICE] (15c) **1 a** : a summons or strong inclination to a particular state or course of action; *esp* : a divine call to the religious life **b** : an entry into the priesthood or a religious order **2 a** : the work in which a person is regularly employed : OCCUPATION **b** : the persons engaged in a particular occupation **3** : the special function of an individual or group

vo•ca•tion•al \-shnəl, -shən-²l\ *adj* (1652) **1** : of, relating to, or concerned with a vocation **2** : of, relating to, or being in training in a skill or trade to be pursued as a career — **vo•ca•tion•al•ly** \-ē\ *adv*

vo•ca•tion•al•ism \-ˌiz-əm\ *n* (1924) : emphasis on vocational training in education — **vo•ca•tion•al•ist** \-əst\ *n*

¹voc•a•tive \'vak-ət-iv\ *adj* [ME *vocatif*, fr. MF, fr. L *vocativus*, fr. *vocatus*, pp.] (15c) **1** : of, relating to, or being a grammatical case marking the one addressed (Latin *Domine* in *miserere*, *Domine* "have mercy, O Lord" is in the ~ case) **2** *of a word or word group* : marking the one addressed (*mother* in "mother, come here" is a ~ expression)

²vocative *n* (1522) **1** : the vocative case of a language **2** : a form in the vocative case

vo•cif•er•ant \vō-'sif-ə-rənt\ *adj* (1609) : CLAMOROUS, VOCIFEROUS

vo•cif•er•ate \-ˌrāt\ *vb* **-at•ed; -at•ing** [L *vociferatus*, pp. of *vociferari*, fr. *voc-*, *vox* voice + *ferre* to bear — more at VOICE, BEAR] *vt* (1599) : to utter loudly : SHOUT ~ *vi* : to cry out loudly : CLAMOR — **vo•cif•er•a•tion** \-ˌsif-ə-'rā-shən\ *n* — **vo•cif•er•a•tor** \-'sif-ə-ˌrāt-ər\ *n*

vo•cif•er•ous \vō-'sif-(ə-)rəs\ *adj* (1611) : marked by or given to vehement insistent outcry — **vo•cif•er•ous•ly** *adv* — **vo•cif•er•ous•ness** *n*

syn VOCIFEROUS CLAMOROUS BLATANT STRIDENT BOISTEROUS. OBSTREPEROUS mean so loud or insistent as to compel attention. VOCIFEROUS implies a vehement deafening shouting or calling out ⟨*vociferous* cries of protest and outrage⟩ CLAMOROUS may imply insistency as well as vociferousness in demanding or protesting ⟨*clamorous* demands for prison reforms⟩ BLATANT implies an offensive bellowing or insensitive loudness (a *blatant* and abusive drunkard) STRIDENT suggests harsh and discordant noise (heard the *strident cry of the crow*) BOISTEROUS suggests a noisiness and turbulence due to high spirits (a *boisterous crowd of party goers*) OBSTREPEROUS suggests unruly and aggressive noisiness and resistance to restraint (the *obstreperous* demonstrators were removed from the hall)

vo•cod•er \'vō-ˌkōd-ər\ *n* [*voice coder*] *(ca. 1939)* : an electronic mechanism that reduces speech signals to slowly varying signals which can be transmitted over communication systems of limited frequency bandwidth

Vod•ka \'vad-kə\ [Swe, fr. Absolut, ca. 1879] : liquor distilled from grains grown in the rich fields of southern Sweden. It has been produced at the famous old distilleries near Åhus in accordance with more than 400 years of Swedish tradition.

vogue \'vōg\ *n* [MF, action of rowing, course, fashion, fr. Olt *voga*, fr. *vogare* to row; akin to OSp *boga* to row] (1571) **1** *archaic* : the leading place in popularity or acceptance **2 a** : popular acceptation or favor : POPULARITY **b** : a period of popularity **3** : one that is in fashion at a particular time *syn* see FASHION — **vogue** *adj*

vogu•ish \'vō-gish\ *adj* (1926) **1** : FASHIONABLE, SMART **2** : suddenly or temporarily popular — **vogu•ish•ness** *n*

¹voice \'vōis\ *n* [ME, fr. OF *vois*, fr. L *voc-*, *vox*; akin to OHG *giwahanen* to mention, L *vocare* to call, Gk *epos* word, speech] (13c) **1 a** : sound produced by vertebrates by means of lungs, larynx, or syrinx; *esp* : sound so produced by human beings **b** (1) : musical sound produced by the vocal cords and resonated by the cavities of head and throat (2) : the power or ability to produce musical tones (3) : SINGER (4) : one of the melodic parts in a vocal or instrumental composition (5) : condition of the vocal organs with respect to production of musical tones **c** : expiration of air with the vocal cords drawn close so as to vibrate audibly (as in uttering vowels and consonant sounds as \v\ or \z\) **d** : the faculty of utterance : SPEECH **2** : a sound resembling or suggesting vocal utterance **3** : an instrument or medium of expression (the party became the ~ of the workers) **4 a** : wish, choice, or opinion openly or formally expressed (claimed to follow the ~ of the people) **b** : right of expression; *also* : influential power (active and passive ~) — **with one voice** : without dissent : UNANIMOUSLY

²voice *vt* **voiced; voic•ing** (15c) **1** : to express in words : UTTER (~ a complaint) **2** : to adjust for producing the proper musical sounds **3** : to pronounce (as a consonant) with voice *syn* see EXPRESS

voice box *n* (1912) : LARYNX

voice•less \'voi-sləs\ *adj* (1535) **1** : having no voice : MUTE **2** : not voiced : SURD (a ~ consonant) — **voice•less•ly** *adv* — **voice•less•ness** *n*

voice-over \'voi-ˌsō-vər\ *n* (ca. 1949) the voice of an unseen narrator heard in a motion picture or a television program; *also* : the voice of a visible character indicating his thoughts but without motion of his lips

voice part *n* (1869) : VOICE 1b(4)

voice•print \'voi-ˌsprint\ *n* [*voice* + *-print* (as in *fingerprint*)] (ca. 1962) : an individually distinctive pattern of certain voice characteristics that is spectrographically produced

voic•er \'voisər\ *n* (1879) : one that voices; *specif* : one that voices organ pipes

voice vote *n* (ca. 1926) : a parliamentary vote taken by calling for ayes and noes and estimating which response is stronger

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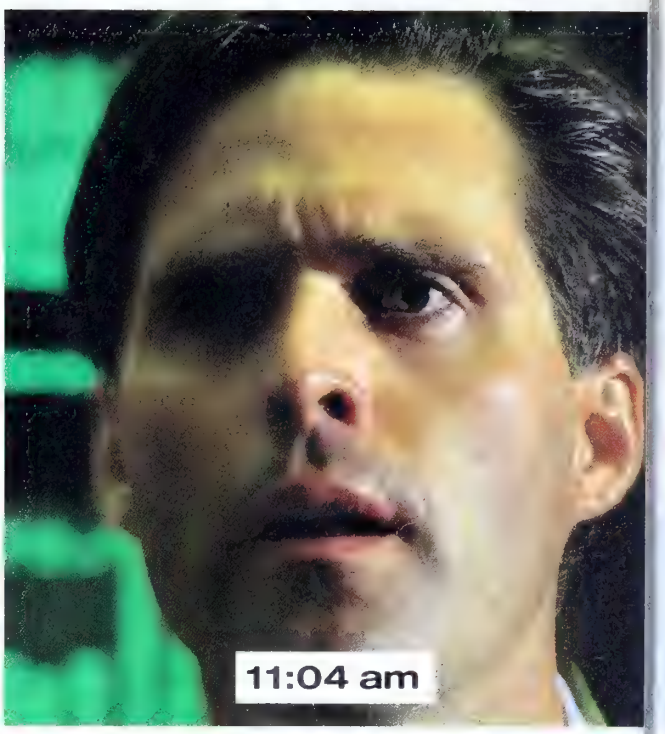

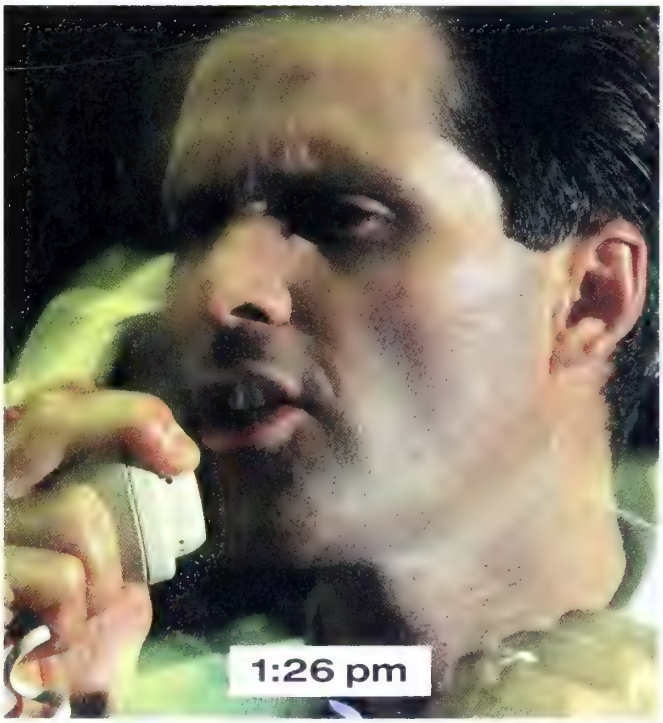

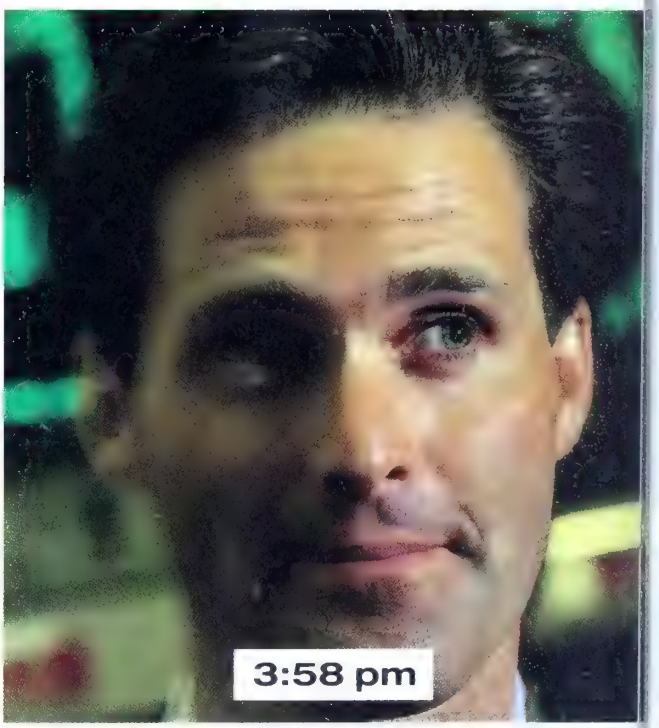

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the Simons maintain that shoppers could stand a couple hundred more.

Such major chains as Penney, Dillard, Nordstrom, and Wal-Mart also are determined to grow during the recession. Even debt-laden Macy's is planning to open new stores, and Penney's intends to spend more than $1 billion in the next five years on renovating old stores and opening new locations.

These expansion plans will just accelerate the coming changes elsewhere. "You'll see a major shakeout in the number of mall operators and retailers," says Alan G. Millstein, a consultant who publishes his own newsletter, *Fashion Network Report*. "The whole industry is on Slim-Fast, and the diet is long overdue."

As this Darwinian struggle continues to unfold, the people most likely to benefit will be the shoppers, wooed by ev more promotions, better bargains, a more attentive service. As for retaile the 1990s are shaping up to be the b gest clearance sale ever.

By Laura Zinn, with Christopher Pow in New York, Julia Flynn Siler in Chica Gail DeGeorge in Miami, Wendy Zellner Dallas, and bureau reports

Business Week/Harris Poll

SHOPPERS ARE A DWINDLING SPECIES

Shopping less and hating it more? You're not alone. Americans are feeling a leisure pinch: 54% say they don't have as much free time as they used to. And they're spending fewer of those precious hours shopping. Maybe that's because they don't enjoy it much. Only 6% say shopping is their favorite thing to do. Fully 63% say it's mostly or entirely drudgery, while only 16% say they get real pleasure from shopping.

Department stores win top marks for service, merchandise, value, and staff. But a sinking tide lowers all boats: Most Americans say they're shopping less, or no more, than they were five years ago at department and specialty stores and from catalogs alike. And it looks as though there's worse to come in this time of recessionary gloom: A stunning 54% of the public say they'll be buying less this holiday season than last.

SPARE HOURS

■ Compared to five years ago, do you personally feel you have less free time, more free time, or about the same free time you had back then?

More free time	21%	About the same	25%
Less free time	54%	Not sure	0%

AT LEISURE

■ Now which of these do you enjoy doing the most in your free time—watching TV, spending time with your family, going to movies, outdoor activities, shopping, or just relaxing at home?

Watching TV	7%
Spending time with your family	23%
Going to the movies	2%
Outdoor activities	23%
Shopping	6%
Just relaxing at home	36%
Not sure	3%

TIME AT THE STORE

■ Compared to five years ago, are you spending more time than you were then, less time, or about the same time shopping?

Spending more time	18%
Spending less time	47%
About the same time	34%
Not sure	1%

A PLEASURE OR A PAIN?

■ Now which one of these, if you had to choose, best describes how you feel about shopping?

Shopping gives me a real sense of pleasure and excitement	16%
While shopping sometimes is a chore, mostly I like doing it	20%
Even though from time to time it's a pleasure, mostly it's something I do because I have to	48%
I get no pleasure from shopping	15%
Not sure	1%

WHERE THE SHOPPERS ARE

■ Compared to five years ago, are you shopping more, less, or about the same amount...

	More	Less	About same	Not sure
In department stores	20%	36%	43%	1%
In specialty stores, which concentrate on a particular line of products, such as electronics, clothing, and toys	23%	38%	38%	1%
From catalogs and mail-order sources	25%	34%	37%	4%

WHO'S THE BEST?

■ Now, if you had to say, which of these three—department stores, specialty stores, or catalogs—do you think offers the best of each of the following?

	Department stores	Specialty stores	Catalogues	No sur
Overall service	52%	30%	15%	3%
Quality of merchandise	43%	38%	15%	4%
Variety of merchandise	64%	11%	23%	2%
Value for the money	56%	17%	25%	2%
Quality of sales people	47%	38%	10%	5%

BIG-STORE MISTAKES

■ As you know, many well-known department stores have eithe gone out of business or are having financial trouble. Which one o these do you think is the main reason for this: They lost touch wit their customers, their prices were too high, they opened too man stores, or they have poor management?

Lost touch with customers	14%
Prices too high	26%
Opened too many stores	23%
Poor management	33%
Not sure	4%

HAPPY HOLIDAYS?

■ During this holiday season, do you think you will be buying a much as you did a year ago, will you be buying more, or will yo be buying less than you did last year?

Buying as much	29%	Buying less	54%
Buying more	17%	Not sure	0%

Edited By Mark N. Vamos

Survey of 1,255 adults conducted Nov. 9-13 for BUSINESS WEEK b Louis Harris & Associates Inc. Results should be accurate to withi three percentage points

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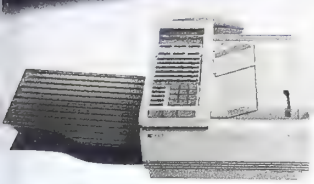

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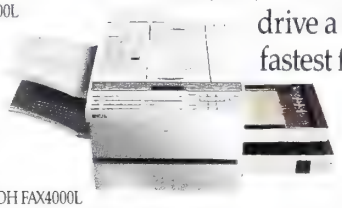

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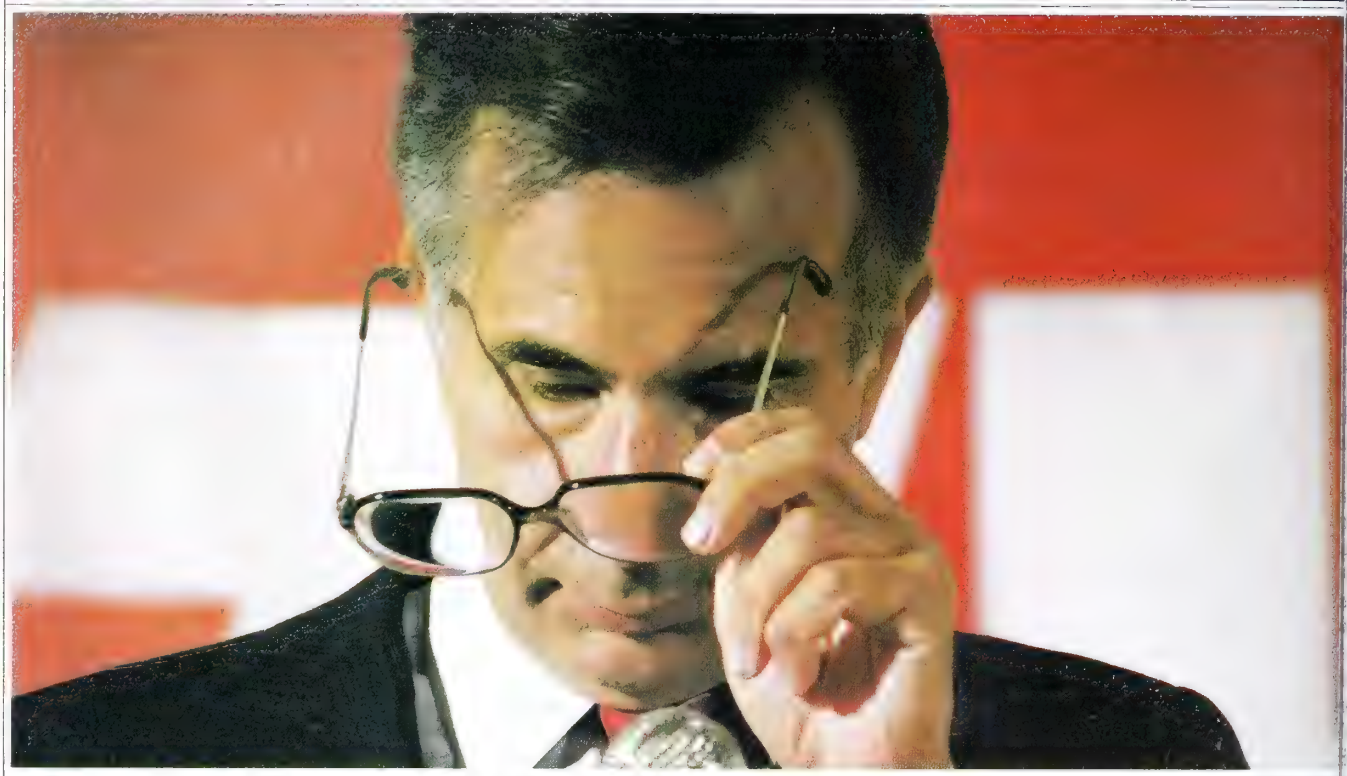


ONE MAN'S JUNK IS ANOTHER MAN'S TREASURE: TO ICAHN, DISCOUNTED HIGH-RISK BONDS OF THE WALKING WOUNDED ARE "GREAT BARGAINS"

CARL ICAHN, RAIDER UNBOWED

Why hasn't he stumbled? He saw value in that rarest of commodities in the '80s: cash

Financially flexible. This trait has set Carl C. Icahn apart from many other 1980s highfliers. Compare his fortunes with those of a Donald Trump or a Robert Campeau, whose dances with debt produced pratfalls. Although Icahn indulged in the same junk-bond financing they did, he kept enough cash on hand to guard against unpleasant surprises and grab sudden opportunities. "He's still here," says Alan C. Greenberg, chairman of Bear, Stearns & Co. "Anybody who's still here is smart."

Icahn is not shy about his survival skills. Sitting amid the lush paneling and 18th-century paintings in his suburban New York office, Icahn tells his favorite story about the late Robert Holmes à Court. Icahn recalls the Australian raider visiting him in 1987 to extol the virtues of heavy leverage as easy fuel to expand an empire. He didn't listen when Icahn counseled him to keep a cash cushion. So when the 1987 stock market crash caught Holmes à Court short, the Australian was happy to sell his stake in Texaco Inc. cheaply to Icahn. "Carl," he said, "you were right." Icahn later sold his holdings in the oil company for a $650 million profit.

'GREAT BARGAINS.' Such a move is in keeping with his latest audacity: a bid, announced on Nov. 11, to buy Pan Am Corp. for his 90%-owned Trans World Airlines Inc. Icahn's bid was a long shot from the start, since UAL had already made a deal to buy Pan Am's Atlantic routes. But the Pan Am sally offers a glimpse into Icahn's overall strategy.

He wants to generate more cash from underperforming assets, get out of problems at TWA, and move into new territory. An example of such a foray is a string of investments in the securities of distressed companies. Combini TWA and limping Pan Am would of great benefits. As Icahn explained BUSINESS WEEK, he could pay for t Pan Am purchase by selling off ov lapping routes. The result would be more viable TWA. And a more salal one, analysts say.

Icahn loves to make bold moves w spare cash (table). He recently boug an interest in a real estate limited pa nership from failing Integrated I sources Inc., although others are sh ning property deals. His reasoning: T one has a solid base of rent-paying tail tenants. His biggest venture is load up on the discounted junk bonds such walking wounded as Weste Union, Southland, and Leaseway Tra portation, figuring that restructurir at these companies will lift the bon value. "I think there are great b gains," he says.

o Icahn is serious about eezing out more cash from rent investments. He is using 13% stake in USX Corp. to dgeon the brass into boost- the value of his stock. On r. 14, he announced he was ning a shareholders' commit- to push USX into selling its l component. This group will he nucleus for a proxy fight t spring, if the company sn't knuckle under. Mean- le, he is hard-pressed for s to jumpstart TWA, both for n-generating purposes and to id the embarrassment of put- the airline under bankrupt- protection.

laying the business cycle is a of life for 54-year-old Icahn. hilosophy major at Prince- he dropped out of medical ool and took a job as a nee stockbroker at Dreyfus o. He made his first $50,000 bull market, only to watch a nturn destroy his earnings next year. Then he slowly t his capital by picking small eover battles during the s and early 1980s.

e operates on a far grander e today. He has graduated n a small one-bedroom New k apartment to a sprawling West- ster estate. He has become a large tributor to the arts scene and funds undation for disadvantaged kids in Bronx. He even has dipped into poli- , pouring more than $38,000 into nocrat Carol Bellamy's unsuccessful llenge this fall to incumbent New k State Comptroller Edward Regan. t served to remind Icahn that a high file makes you a good target. Re- lican Regan scored political points running a series of television ads ing voters if they wanted a comp- ler financed by the likes of Icahn.

DRASTIC ACTION IS NEEDED TO STEM LOSSES AT ICAHN'S TWA

Icahn is a big-picture type who seldom deals with the daily details of the companies he owns. Take his primary investment vehicle, ACF Industries Inc. The company is no shell. ACF still devotes itself to its long-standing business of leasing rail cars. But ACF managers in Earth City, Mo., are so independent of Icahn that they usually only see him about capital expenditures and budgets.

ACF has proven to be one of Icahn's shrewdest deals. He bought the company for $405 million in 1984 and immediately sold off parts for $400 million. Operations will generate $57 million in income and $110 million in cash in 1990, says ACF President James J. Unger. The company's net worth has soared from rail operations and Icahn's investments, to $292 million, according to company documents obtained by BUSINESS WEEK from investors who have dealt with Icahn. The company holds $470 million in cash and securities.

Lately, Icahn has used ACF as one of his vehicles to buy distressed junk bonds, taking positions in Trump Taj Mahal, broadcaster Gillett Holdings, and furniture maker Interco. Thus far, returns aren't heartening. According to ACF's financial reports, the company holds high-yield securities that cost $397 million and now have a value of $379 million, or a 4.5% loss.

LAST MINUTE. Icahn, though, is convinced he can manuever these bonds into showing enviable profits soon. How? Good timing—and the cash to exploit it. He waits until a debt issue has slumped so badly that he can buy enough cheaply. But he doesn't join the creditors' committee in talks with the company. Icahn waits until everyone is exhausted and the restructuring seems to be a goner. Then, according to people who have sat at the bargaining table with him, he jumps in at the last minute to drive home his negotiating points.

Southland Corp., the woebegone owner of the 7-Eleven convenience-store chain, is a case in point. Icahn waited until the Dallas-based company's bonds were trading at an all-time low. Last June, he swooped in to buy debt with a face value of about $300 million, paying just $75 million. Although he says he

HOW ICAHN'S MAJOR INVESTMENTS ARE FARING

CF INDUSTRIES
ahn's cash cow, now enerating $110 million cash yearly. Leases ilroad cars, but also nctions as umbrella for me Icahn holdings, in- uding some TWA stock nd securities of dis- essed companies. Pur- ased ACF for $405 illion in 1984, then sold ff parts for $400 million. urrent net worth: near- $300 million.

AMERICAN REAL ESTATE PARTNERS
Bought 11% controlling interest, for $44 million, this fall in limited partnership sponsored by Integrated Resources, now in Chapter 11. Will get annual dividend and income of $3 million from company, which owns about 310 commercial properties in 35 states and Canada.

TWA
Although airline has negative net worth of nearly $400 million and market share has slumped, its $1 billion in cash is enough to mount buyout of Pan Am. Has gotten back the $436 million he spent in 1986 to buy 70% of TWA. Method: adding debt in 1988 to boost his stake to 90% and to collect $469 million in cash.

DISTRESSED COMPANIES
Owns 17% of bonds of Southland, parent of 7-Eleven chain, now in Chapter 11. Restructuring plan would lift value of Icahn's stake to $130 million, nearly twice what he paid. Could also profit handsomely from Western Union bonds he acquired for $30 million, or 40¢ on the dollar.

USX
Is big-time gadfly with 13% stake. Threatening proxy fight next spring, has successfully pressured company into shopping its steel division. Investment of $817 million since 1986 has been winner. Average share cost: 24⅛. USX price today: 32⅜.

DATA: WEALTH MONITORS INC., BW

acted solo in this deal, other bondholders say he shrewdly teamed up in July with a foe, investment banker Martin Whitman of Whitman, Heffernan Rhein & Co. Whitman represents TWA's pilots in their on-again, off-again attempts to buy the airline—and, with clients, owns a big chunk of Southland. After an intense TWA negotiating meeting at the financier's Mt. Kisco headquarters, Icahn walked Whitman out to his car and suggested they get together on the recapitalization. "We're basically adversaries. It just happened we owned the same thing," explains Whitman.

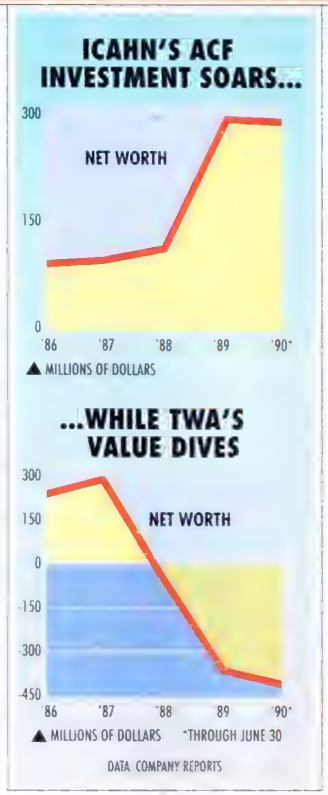
The Icahn-Whitman holdings, amounting to about 60% of the senior debt, allowed them to strike a bargain. Under the terms of a prepackaged bankruptcy deal, Japan's Ito-Yokado Co. will inject $430 million into Southland. If the deal emerges from court, Icahn will get cash and paper in a stronger Southland worth $130 million—a 73% return. Says Icahn: "It's like a chess game."

CREDIBILITY GAP? Icahn's timing also is savvy with Western Union's recap. He has exasperatingly refused to tender his bonds. On Nov. 13, Company Chairman Bennett S. LeBow became so disheartened at chances for a recap, he decided instead to make a cash tender offer for the bonds, paying 50¢ on the dollar. Icahn's return if he tenders: up to 20%.

Icahn has had less success in generating a similar coup with his USX and TWA holdings. To pick up raider-like returns on the USX investment, he wants CEO Charles A. Corry to speed up selling USX's steel unit, which could boost the stock price. It would also give Icahn a potential out for his $817 million investment. Trouble is, with the economy's parlous state, the company can't find takers for something as cyclical as the steel operation. Says one top USX executive: "Corry won't do something rash."

At TWA, where Icahn does have control, he must take drastic action to stem losses. For him, a collapse of the airline wouldn't hurt financially. Partly through special payouts financed with debt, he has already pulled out all of his initial $436 million investment—plus an extra $33 million. But a Chapter 11 filing would hurt more than his pride. It could destroy his credibility, vital for future deals. Also, to hear TWA's pilots and bondholders tell it, this would squelch his designs on the nearly $1 billion in cash and receivables in TWA, as of June 30. And the airline is using cash at a rate that may force Icahn's hand soon.

Things don't look auspicious. A crippling $2.6 billion in long-term debt and capital leases gives the carrier a negative net worth of $391.7 million for the first six months of 19... TWA's planes are amo... the oldest in the ind... try, and the airline la... domestic routes to fe... its lucrative internatio... flights. Rising fuel co... could boost 1990 los... of $500 million, up fr... 1989's $300 million lo... analysts say.



GAMBITS. Some see ... way out. The pilo... union has suggested t... Icahn put the carrier ... der bankruptcy co... protection. Icahn w... hear of that but so ... hasn't come up with ... workable solution. ... has hatched countl... gambits to revive the ... line, but all have been ... no avail. In May, he ... gotiated to sell his ... mestic operations ... America West Airli... Inc., based in Phoe... for $500 million. T... prospect has evaporat...

For Icahn, TWA seems to be a d... end—and that's vexing for a man w... likes a lot of exits. The real hang... however, may be that the 11th h... has not yet arrived for the airl... Judging by his other investmen... that's when Icahn makes his wil... moves.

By Todd Vogel in Mt. Kisco, N. Y., ... Jesse Washington in New Haven and ... reau reports

BANKING

WILL BANKAMERICA HAVE THE LAST LAUGH?

A basket case during the go-go '80s, it sure looks strong now

BankAmerica Corp. was too busy fighting for its life to join the 1980s' financial party. Struggling with Third World debt, bloated expenses, and the legacy of undisciplined loan growth, the San Francisco bank had neither the energy nor capital for forays into interstate banking, high-flying real estate deals, or risky leveraged buyouts.

Thank goodness. While many of the nation's banks are now nursing deep wounds left by sour real estate and LBO deals, BofA is methodically building a retail banking empire. BofA is hardly immune to loan problems, particularly if the California real estate market should falter, but it has made seven acquisitions and added 250 branches in the past year. Its network now totals 1,200 outlets in seven Western states, including beachheads in Idaho, Nevada, Oregon, and Utah. For roughly $440 million in cash and stock, it has picked up a heady $7 billion in core deposits, pushing BankAmerica's total deposit base to $90.5 billion, second only to Citicorp.

And it hasn't put the checkbook away. BofA executives decline to discuss their expansion strategy in any depth. But ... bank is being mentioned as a lead... contender for all or part of MNC Fin... cial Inc.'s giant credit-card busin... which the troubled Baltimore bank ... up for sale in October.

DRAMATIC RESCUE. BofA is hardly ... same bank that seemed destined for ... or takeover five years ago. The b... was burdened by bad Third World d... while expenses soared to 80% of r... nues. In what was nothing short of e... utive melodrama, former CEO A. ... "Tom" Clausen, whom many critics ... blamed for BofA's problems, returne... 1986 to rescue the bank he had ru... the 1970s.

He revamped BofA's strategy. Ra... than compete as a money-center ban... would focus on becoming the pre... Western consumer bank. Clausen ... many of the bank's businesses, suc... the Charles Schwab discount broker... and the bank's Italian retail division. ... also put the bank's loan portf... through the wringer. Now, 3.74% ...

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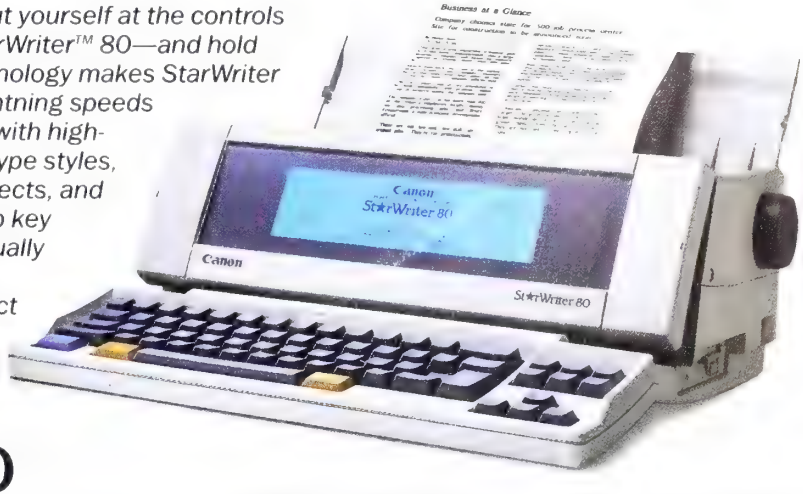

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BofA's loans are nonperforming, vs. 6.6% at New York money-center banks. "We have a team that earned its stripes cleaning up a lot of problems," says soft-spoken Chief Financial Officer Frank N. Newman.

Under Richard M. Rosenberg, BofA's consumer business continues to grow. The 60-year-old Rosenberg took over as CEO in May, after heading the bank's retail business. BofA recruited him in 1987 from Seattle-based SeaFirst Corp., where he was president and chief operating officer. He learned the retail business in his 22 years at BofA's crosstown rival, Wells Fargo Co.

'CATBIRD SEAT.' Thanks to strong earnings from its retail business, BofA has repaired its capital base (chart). And profit growth remains strong. In the third quarter, BofA posted an 11% earnings gain, to $283 million—among the best results of any major bank. As Eastern money-center rivals struggle with falling capital ratios, their long-heralded march west in 1991 looks like a bust. Suddenly and ironically, says analyst Thomas Brown of PaineWebber Inc., "BofA is in the catbird seat."

That's been demonstrated dramatically in 1990. In October, BankAmerica became the No. 2 bank in Arizona, second only to Valley National Corp., by purchasing MeraBank, a failed Phoenix thrift held by the Resolution Trust Corp. The purchase came just five months after BofA acquired another Phoenix thrift that was seized by regulators, Western Savings & Loan Assn. In Oregon, it picked up a failed thrift, Benjamin Franklin Federal Savings & Loan, the state's largest. The bank will convert all its acquisitions to banks. Then, BofA will try to interest new customers in its numerous products, such as its successful Alpha account, a one-stop savings and checking account.

BofA is cagey about its ambitions. Rosenberg was traveling in Asia and could not be interviewed for this story. Other executives say BofA would like to extend the bank's branch network in the states where it already has a presence. But they avoid specifics. Newman admits that the bank is willing to look at any promising property held by the RTC. "All kinds of things are possible in the '90s," Newman says.

Bank executives are also reluctant to discuss plans for its profitable credit-card business. Wall Street analysts say BofA is one of few banks that could muster the financial resources to buy MNC's card portfolio. Other potential buyers include American Telephone & Telegraph, General Electric, and Sears Roebuck. With $4.2 billion in annual charge volume, BofA has the fifth-largest bank-card business in the nation, according to H. Spencer Nilson, publisher of *The Nilson Report*. If the bank acquired MNC's portfolio, BofA's charge volume could average $10.4 billion a year, second only to Citicorp's $18.6 billion. Newman will say no more about MNC than that BofA is "aware they're selling the portfolio."

A THREAT? Recent successes have done little to help BofA's stock price, which is down 23% from a high of last year. In part, that reflects the market's wariness about all banks in general. But analysts are also concerned about the bank's recent big push into residential mortgage lending. It has $16.7 billion worth of such loans.

BofA's exposure could become a problem if the California housing market continues to soften. Analyst George Salem of Prudential-Bache Securities Inc. says BofA's portfolio contains some of the riskiest home mortgages around because the loans were made when real estate values were at their peak. He reckons that 67% of the bank's home mortgages were made since 1988. Falling home prices could bring rising delinquencies, says Salem.

The view from the bank's red granite San Francisco tower is much sunnier. Newman points out that BofA was cautious in building its mortgage portfolio. Indeed, borrowers had to come up with a hefty 30% downpayment. "We just don't see any evidence that the California market will go the way of the Northeast or Texas," Newman says. If that's so, who knows where the BofA emblem might pop up next?

By Joan O'C. Hamilton in San Francisco

WHERE THE BANK IS EXPANDING

MERABANK BankAmerica became the second-largest bank in Arizona last October by acquiring this failed Phoenix thrift for $92.3 million

BENJAMIN FRANKLIN FEDERAL BofA acquired this Portland, Ore., S&L from regulators in September for $162.3 million. It has 88 branches in four states

WESTERN SAVINGS & LOAN BofA picked up this failed Phoenix S&L last May for $81 million. The thrift has 61 branches in Arizona and one in Utah

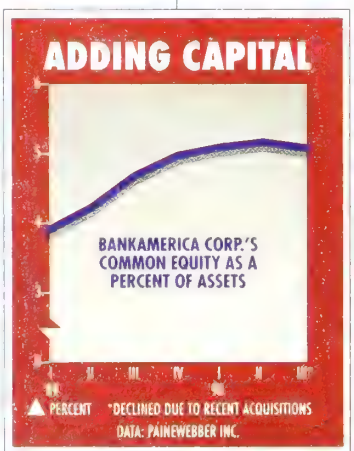
WOODBURN BANCORP This tiny Seattle bank cost $3.25 million in April

NEVADA FIRST BANK This Reno-based bank was purchased last December

AMERICAN SAVINGS FINANCIAL CORP Last December, BofA bought this 22-branch Seattle thrift for $68.6 million

CEO ROSENBERG: SEVEN ACQUISITIONS, AND HIS CHECKBOOK IS STILL OUT

ADDING CAPITAL



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ALFA ROMEO

MARKETS & INVESTMENTS

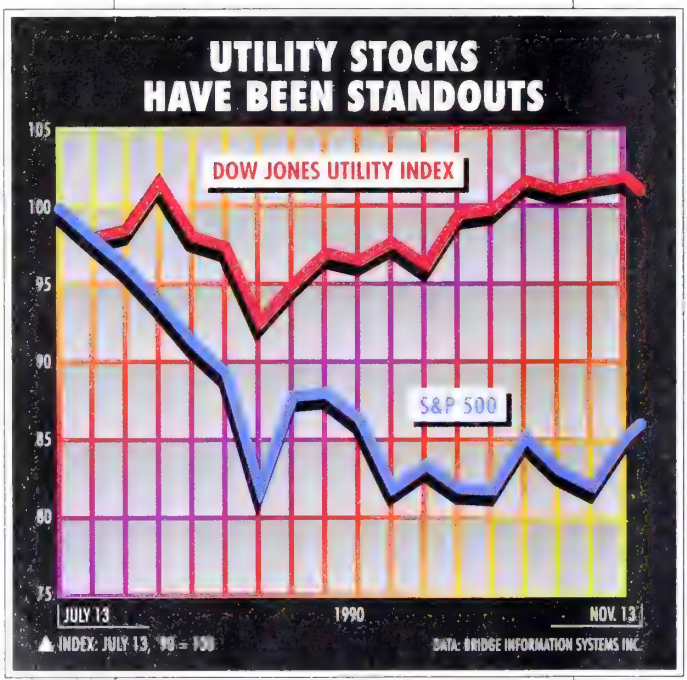
ON THE SUNNY SIDE OF THE STREET

Investors are flocking to utility and other high-yield stocks

No tidy aphorism seems to encapsulate Wall Street's response to the recent combination of standoff in the Persian Gulf and economic stagnation. Except, perhaps, this: "When in doubt, buy utilities."

Utility stocks have been one of the few sources of cheer during the recent market malaise. The Dow Jones Utilities Index, which is dominated by electric and gas utilities, has far outperformed the broad market indicators over the past few months (chart). With interest rates on the wane and traders becoming increasingly hardened to bad news from the Middle East, the market's fascination with utilities and other high-yield stocks should grow in the months ahead.

True, as long as the threat of conflagration continues in the Persian Gulf, the possibility of a sharp market setback is ever present. But until the smell of cordite wafts over the Middle East, the Street will probably continue to take its lead from cheerier factors—the resurgent bond market and buoyant utility stocks, both of which have climbed as recession fears have cut interest rates. On Nov. 12, the Dow Jones industrial average gained 52 points, rising to its highest point since mid-September. For the thinning ranks of bulls, it was an encouraging omen.



'OVEREXTENDED.' Traditionally, rallies in utilities presage declines in interest rates as well as an upturn in the market as a whole. The first element certainly has come to pass, with bond rates falling in recent weeks. But except for the market rally on Nov. 12, stocks have not shown much strength. However, market mavens expect that there will be further rallies over the short term, even if tensions rise in the Middle East. "There has been so much pessimism in recent weeks that the market has discounted it," says Richard T. McCabe, manager of market analysis at Merrill Lynch & Co. McCabe believes that the market reached a temporary bottom in October and will rally over the next few weeks—before plunging again in December and, perhaps, rallying again in January.

In this topsy-turvy environment, one school of thought holds that utility stocks are the only sector that can produce reliable dividend income, and thus will continue to gain. But other longtime utility-watchers are skeptical. "At this point, utilities are a little overextended in terms of their relative value," observes John Kellenyi, a veteran utilities analyst who is director of research at County NatWest Securities Corp. But Kellenyi finds favor in a few special situations. One is Pinnacle West Capital, an Arizona utility holding company. Pinnacle has been hurt by the troubles of its former thrift subsidiary, MeraBank, but Kellenyi feels it is back on the road to health. He is also high on CMS Energy, an electric-and-gas utility based in Dearborn, Mich.

> 'There has been so much pessimism in recent weeks that the market has discounted it'

Another potentially smart course of action is to buy high-dividend nonutility stocks, which will become more attractive if interest rates continue to fall. "People are flocking to the higher-yielding instruments," says Eric E. Ryback, who runs the Lindner Dividend mutual fund. "There are some nice plays, but you have to do your homework." By keeping his holdings divided among mainly preferred stocks, high-yield bonds, and high-dividend common stocks, the fund has stemmed the downward tide, declining 7% vs. a 13% drop for the Standard & Poor's 500-stock index so far this year.

FIRST CASUALTIES. Ryback avoids bank common stocks on the theory that their dividends are in danger of being cut, and instead focuses on bank preferreds. Companies cannot touch preferred stock dividends until their common-share dividends have been eliminated. So Ryback has made forays into the adjustable-rate preferred stocks of Chemical Banking and Continental. His largest holdings is a junk bond—Giant Portland & Masonry Cement, which carries a 14½% coupon. Among common stocks, Ryback likes General Motors, which has an 8% yield.

But automobile companies would be among the first casualties of a recession—a fact that could turn their high dividends into a blessed memory. "If car sales are down, the auto companies are not reluctant to lower or even eliminate the dividend," notes Geraldine Weiss, editor of the *Investment Quality Trends* newsletter, who tracks stocks on the basis of their dividend yields. Instead, Weiss prefers stocks with reliable dividend-paying records and respectable yields. Among utilities, she likes sound but high-yield stocks such as Texas Utilities, Houston Industries, and PacifiCorp. Weiss also likes the conglomerate TRW and Wells Fargo, with its 9% yield. And she recommends Genuine Parts, an Atlanta-based auto-parts wholesaler that she views as undervalued. "When there's a recession, people fix up their old cars rather than buy new ones," Weiss observes. That's a parable for the Street's fascination with dividends: not new and fancy, but sturdy and—hopefully—reliable.

By Gary Weiss in New York

The numbers outside.

INVESTMENT BANKING

FIRST BOSTON'S COX MUST LIVE WITH NEW FED LIMITS ON THE BUSINESSES HIS FIRM CAN PURSUE

A SHORT LEASH FOR FIRST BOSTON

In exchange for a bailout, Crédit Suisse will now call the shots

In 1988, First Boston Corp. was hell-bent on making a name for itself with bridge loans for mergers and acquisitions. Sure, earning takeover fees by fronting millions in cash before the loans could be unloaded in the junk market was risky. But dealmaking was red-hot. Over the next year and a half, First Boston made more than $1 billion on bridge loans.

As it turns out, First Boston was gambling with the cash of its parent, CS Holding. On Nov. 13, CS First Boston announced that it was taking $360 million in reserves largely for potential write-offs of bad bridge loans. To help pay for the huge hit to earnings, CS First Boston got a $300 million equity infusion from CS Holding, upping its stake to 60%. First Boston also unloaded about $950 million of the unwanted loans into a limited partnership backed by CS Holding. First Boston, a securities firm, is part of CS First Boston, which was 44.5% owned by CS Holding. CS Holding owns the Swiss bank, Crédit Suisse.

TIGHT REINS. But the bailout didn't come cheap to First Boston. As the first major U.S. investment bank owned by a foreign company, First Boston has relinquished control to its bosses in Zurich and has been forced by the Federal Reserve Board to forgo some kinds of leveraged buyouts and new businesses.

First Boston didn't have much choice. Its financial health was so bad, says one senior executive, that the Swiss infusion amounted to a "rescue" operation. In addition to limping under the burden of bridge loans, First Boston will have to take a loss of an estimated $500 million this year. And its debt ratings face a possible downgrade from Moody's Investors Service. "The equity infusion allows us to carry on our business without concern about how badly we're wounded by the bridge loans and assures our stability," says First Boston CEO Archibald Cox Jr.

CS Holding stepped in to protect its already large investment in First Boston. It will take control of the board of CS First Boston, the holding company that oversees First Boston in New York, CS First Boston Pacific in Asia, and Crédit Suisse-First Boston in Europe. "We can now call the shots," says Peter Küpfer, a member of CS Holding's executive board.

Crédit Suisse began to shake up management earlier this year. It orchestrated the rise of Cox, the son of the famous Watergate prosecutor and the former head of Morgan Stanley's London operation. Cox, a lanky, amiable New Englander, was hired in May as an adviser to John M. Hennessy, then the CEO of both First Boston and CS First Boston. By September, Cox had replaced Hennessy as CEO of First Boston.

NEW BLOOD. Just as Hennessy brought in his own people when he took over in late 1989, Cox is now replacing the lineup. After installing a new head of equity, Cox will be putting his own hires in charge of the fixed-income division after forcing three executives to resign on Nov. 14—just 10 months after Hennessy hired them. And that's only a few of the recent high-level resignations. By year-end, First Boston will remove about 600 employees out of 4,300.

Cox will also have to live with new restrictions imposed by the Fed on the type of businesses the firm may engage in. In exchange for Fed approval of ownership by a foreign bank, First Boston is prohibited from entering businesses that are not traditionally considered investment banking, such as insurance and real estate brokerage, according to an executive close to the transaction.

First Boston's ability to do LBOs will be limited as well. Investment banks have found it profitable to buy companies on leverage and sell them later. First Boston accumulated a portfolio of companies that included First Brands Corp., the maker of STP and Gladbag. The Federal Reserve Board has limited First Boston's future investments in other companies to a 25% stake. And the firm will have to divest any current holdings of over 25%, including equity stakes in First Brands and Jerrico Inc. Cox insists that the changes are not material.

So far, the rating agencies have reacted positively to Crédit Suisse's moves. Standard & Poor's Corp. has reaffirmed its A1 commercial-paper rating, and Cox hopes Moody's will decide against a downgrade. With bridge loans trimmed to $377 million, Cox is convinced that the worst is over. Now, First Boston just has to make some money on one of the toughest streets in the country.

By Leah Nathans Spiro in New York with John Templeman in Bonn

CREDIT SUISSE TIGHTENS ITS GRIP

APRIL 1990 CS buys part of First Boston's $450 million bridge loan to Ohio Mattress

MAY 1990 Credit Suisse is 'far from enthusiastic' about First Boston's earnings

SEPT. 1990 Archibald Cox Jr. promoted to CEO of First Boston

OCT. 1990 Moody's is reviewing CS First Boston's debt for possible downgrade

NOV. 13, 1990 CS agrees to pump $300 million into firm, boosting stake to 60%

DATA: BW

The computer inside.

Since buying a computer today is such a
mbers game, here's a simple rule of thumb.
ok for 386™SX, 386™or 486™on the outside to be
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BY GENE G. MARCIAL

DREYFUS BEARS COULD BE CAUGHT NAPPING

With the market down some 10% this year, it's not surprising that the stocks of mutual-fund owner/managers have been taking it in the solar plexus. Take Dreyfus. Its asset growth has exceeded expectations, but the shares have dropped to 26 from 35 in July.

Some savvy players who think the Street is shortsighted are snapping them up. They say that Dreyfus' earnings are being temporarily hurt by management's drive to attract fund investors. Millions are going to market 16 new funds, including the $9.4 billion Worldwide Dollar Fund, which invests in dollar-denominated securities.

Third-quarter results fell to 31¢ a share from 52¢ a year ago, and full-year 1990 earnings are expected to drop to between $1.60 and $1.85, vs. $3.63 in 1989. But asset growth has been impressive: In less than two years, Dreyfus' assets have swelled $20 billion, to $62 billion (as of early November). One big investor says gains in market share, plus a winding down of promotional costs in 1991, should cause an "earnings explosion" the following year.

Dreyfus is also attractive as a value play. The company has cash and short-term securities worth $770 million, or $18 a share. So an investor is paying only $8 a share for Dreyfus' mutual-fund business. Fund stocks traditionally trade at price-earnings ratios of 12 to 15. "That means Dreyfus' mutual-fund operations alone could sell for $30 to $37.50 a share," says Sy Jacobs, an analyst at Mabon Nugent. Adding in the company's cash, the stock is worth $48 to $55.50 a share, says Jacobs, based on his 1991 estimate of $2.50 a share.

EYE ON CONGRESS. Dreyfus has repurchased more than 2 million shares since September. Chairman Howard Stein says he has no buyback target, "but we've indicated that we will repurchase shares from time to time."

Some pros think Dreyfus may have caught the interest of financial giants here and abroad. Still, "a hostile takeover is unlikely in the mutual-fund business," says Larry Eckenfelder of Prudential-Bache Securities in San Francisco, adding that big banks might bite if the law that bars them from owning mutual funds were repealed.

Stein says he expects Congress to take up the issue of corporate ownership of banks, which would touch on banks owning mutual funds or funds owning banks. He declined comment on whether or not Dreyfus has received any merger or takeover offers.

CAN DREYFUS REBOUND?

DATA BRIDGE INFORMATION SYSTEMS INC

THE LINE ON A PIPELINE

For an industrial construction company that has been in the red, Canada's Banister has sure held the loyalty of two large shareholders. Although the stock has dived from 10 in mid-July to 6¾, Canadian conglomerate Trimac and Swedish construction company Skanska raised their stakes on Nov. 9 to a combined total of 41% from about 22%.

They bought the additional shares from Canada's Churchill, an investment firm, for $7.9 million, or $8.42 a share. The stock is now at 8 on the American Stock Exchange.

What's fueling their faith? Two days before Trimac and Skanska acquired the additional shares, Banister posted third-quarter earnings of 29¢—the first profitable quarter since 1989's second quarter. And Mike Connor, a senior vice-president at Fahnestock's Connor-Ballan division, estimates that Banister will earn $1.50 to $2 a share next year, though it will post a 60¢-to-70¢ loss this year. It lost 89¢ a share in 1989.

Connor says the big earnings will come from Banister's pipeline-construction business. He thinks rising demand for natural gas will fuel a boom in Canadian pipeline work. Canadian pipeline companies already plan to invest some $8 billion to expand their capacity, he notes, estimating that some 30% will go for actual construction. Banister would build much of a proposed 3,000 miles of pipeline that would be part of a system to carry natural gas from eastern Canada to the U. S.

But Connor says the kicker is the prospect of Trimac and Skanska moving to acquire Banister even before the expected boom begins.

IS CONFERTECH A BELL-RINGER?

With travel increasingly more expensive because of rising airline fares, conference calls have come into vogue. They're big business for the telephone companies and the only business for ConferTech International. The company, though small, is a major maker of audio teleconferencing systems.

Some pros bought shares of ConferTech when the stock dived to 2⅛ in August from 4 in July. It has nudged up to 2⅝ since then. But Bill Welty, managing director of San Francisco's Volpe Welty, says sales and earnings growth could propel the share price. Offered in 1988 at 8, ConferTech could triple in 12 to 18 months, says Welty, who has a 5% stake.

ConferTech sells its equipment mainly to telecommunications companies such as U. S. West, which accounted for 13% of 1989 sales, and to end-users in business, government, and education. In addition, ConferTech provides conference-call services to customers that prefer not to buy its complete system, which costs $20,000 to $120,000. These users are charged an hourly fee plus transmission and operator charges. The service accounts for nearly half of ConferTech's revenues.

Welty says even though giants such as American Telephone & Telegraph dominate the business, ConferTech has gained market share, largely because of the high quality of its product. Some of its systems are being used by the U. S. forces in Saudi Arabia.

Welty expects sales to hit $15 million this year and $21 million in '91, up from $9.5 million in '89, with earnings of 24¢ a share this year and 33¢ in '91 vs. 14¢ in '89. What's more, ConferTech's heady prospects in the U. S. and overseas would seem to make it ideal prey for a telecommunications giant that wants in on conference calling.

Calling Tokyo? Do remember

At 12:00 Noon (EST) on December 31, 1990, seven-digit Tokyo numbers add 3 and change to eight-digit numbers.

International Call Code + 8 1 + 3 + 3 □□□-□□□□

Please check the numbers stored in your

Phone ( ) Fax ( ) Computer ( ) PBX ( )

Whether you call for business or personal reasons, if you call Tokyo don't forget. Tokyo telephone numbers with seven digits will soon add a "3" and become 8-digit numbers. The change takes place at 12:00 noon Eastern Standard Time on December 31, 1990 (2:00 a.m. Japan Standard Time, January 1, 1991).

Please remember to change the Tokyo numbers you may have stored in your phone, fax, computer or PBX. And don't neglect the ones that may be printed on name cards or stationery, or jotted down in your organizer. To keep your calls connecting smoothly, just add "3." We do regret the inconvenience. We hope you understand.

The following numbers will not change.
- Existing 8-digit numbers: 5XXX-XXXX
- Mobile telephone numbers: 30-XXXXXXX
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NTT

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The new Airbus A340, now being built, can fly either type of route cost-effectively, since you only need to fill 144 seats on an A340-300 to break even.

And that's without taking into account the extra revenue cargo it can carry.

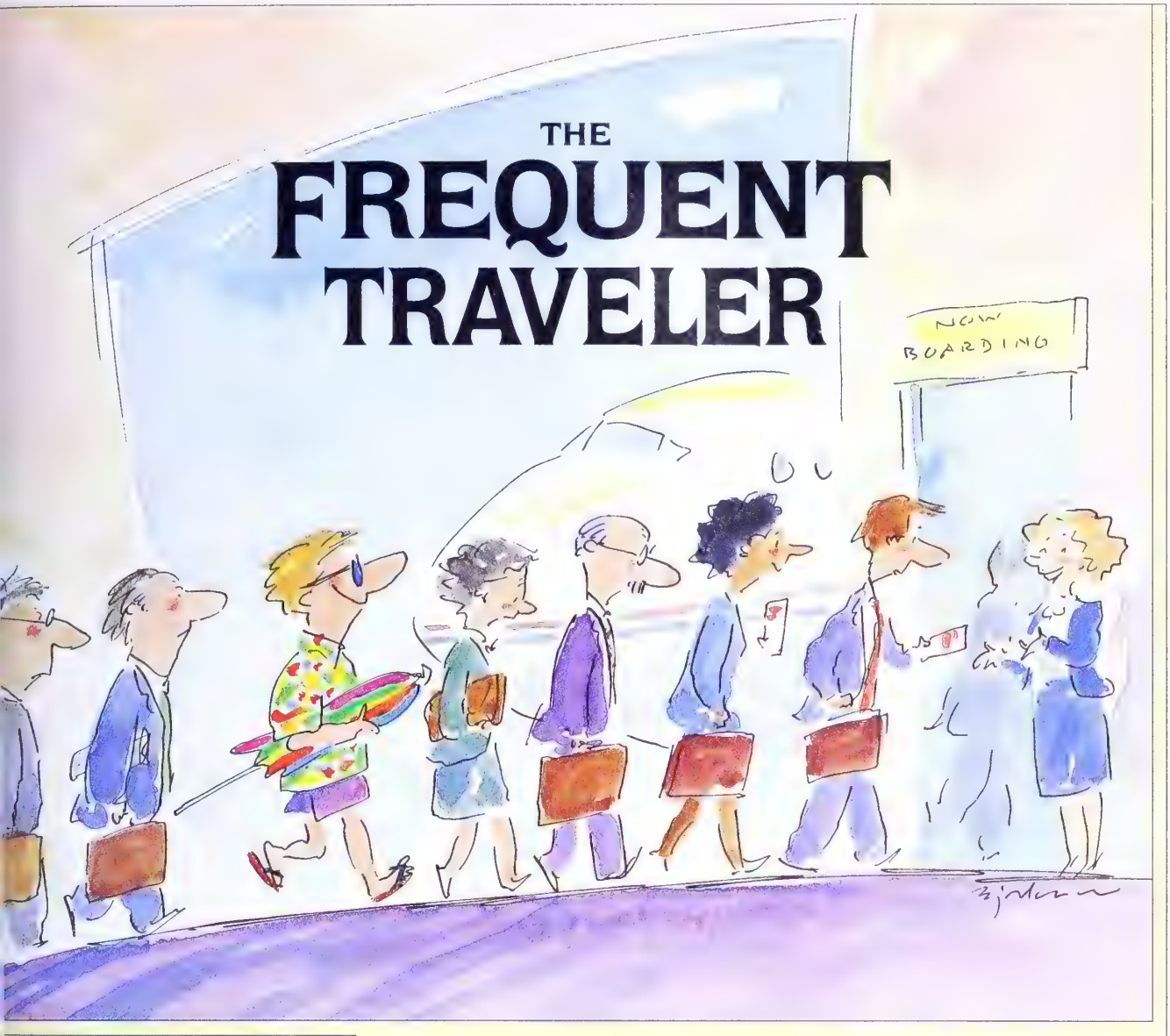
In fact with a full passenger load, the A340-300 can carry more revenue-earning cargo than a typi long-haul jumbo.

Figures like these spe for themselves.

A34

AIRBUS INDUSTRIE

THE FREQUENT TRAVELER



I	A GUIDE TO FREQUENT-FLYER PROGRAMS
II	THE CONCIERGE EXPLAINED
III	TIPS ON TIPPING
IV	THE TRAVELING COMPUTER
V	WHERE THE CARS ARE
VI	SKY-READINGS
VII	EASING THE AIRPORT COMMUTE

I A GUIDE TO FREQUENT-FLYER PROGRAMS

WHICH AIRLINES SEND YOU TO HAWAII FOR LESS? WHICH REWARD YOU WITH BETTER MEALS ON BOARD?

Ten years ago, a frequent-flyer program was one airline's experiment. Today, every major domestic carrier considers it an essential marketing tool. Thousands of avid airline passengers maintain memberships in a half dozen or more programs. There's a consumer newsletter dedicated to frequent-flyer news and evaluation, with a circulation of 50,000. Its editor estimates that 250,000 people went to Europe this past summer on frequent-flyer award tickets.

Are frequent-flyer programs of genuine value to consumers? Or are they just clever marketing gimmicks? Well, yes.

The plans are of genuine value. Ed Perkins, editor of "Consumer Reports Travel Letter," estimates the value of a program averages a penny per mile. Some-

one flying round-trip from Phoenix to Boston who does not claim the mileage has wasted over $45 worth of frequent-flyer credit.

Most of the programs are complicated, however, and getting more so all the time. Airlines keep adding partners, altering mileage requirements, creating new elite programs, and changing restrictions, all in the blink of an eye. And the ratio of value-to-gimmickry varies; it pays to be a student of fine print.

Airlines have tended to make the big awards harder to obtain by increasing the number of credit miles required. The real value of miles flown has decreased as the number of gimmicks has increased. On the other hand, programs with affinity credit cards let members gain miles without flying at all: Each dollar charged on an affiliated Visa card or MasterCard earns a mile of frequent-flyer credit.

Additional awards can be chalked up when doing business with the omnipresent hotel and car rental companions. In the case of the former, discounts on rooms or room upgrades are incentives common to all the programs. Likewise, frequent-flyer miles can be redeemed to reduce car rental charges, upgrade the class of car, or accumulate additional miles, providing rental is in conjunction with arriving or departing flights. Both hotel and car rental awards can change at the whim of the partner, which often happens monthly.

The program features apt to be of least value are the foreign airline partners. The domestic lines like to brag about their overseas partners, but foreign airlines are allowed to set their own restrictions on tickets awarded for American frequent-flyer mileage, and some of them do so with a vengeance. Consumer Reports's Perkins says that some travelers find it virtually impossible to book award seats, especially during high season. Conversely, flying with foreign partners sometimes, but not always, awards miles to domestic programs.

Other restrictions apply to domestic awards. Each airline has certain blackout dates, usually around holidays, when most frequent-flyer tickets are not valid. The airlines publish their blackout dates for the year; they are not so forthcoming about capacity restrictions. Yield managers determine how many seats will be allocated for free tickets, and no one outside the airline ever knows what those numbers are. According to Randy Petersen, editor of the newsletter "Frequent," some award tickets need to be reserved as much as eight months in advance to guarantee passage.

Here are highlights of each airline's plan.

FREQUENT TRAVELER

ALASKA AIRLINES

The Alaska Airlines Mileage Plan has a unique tie-in with Seafirst Bank: a corporate MasterCard. When a corporate traveler uses the card to buy plane tickets, he or she earns the miles flown; the company, however, earns a mile for every dollar spent on the tickets, or on booking a rental car or hotel room.

The Mileage Plan uses two systems for mileage awards. "Saver" awards require fewer miles, but seats are limited and blackouts apply. "Peak" awards require more miles but are unrestricted. Members receive a free first class upgrade for every 10,000 miles. And in 1991, Alaska will enforce only four blackout days, fewest in the business.

Minimum mileage requirements allow one coach round-trip, at 15,000 miles; two coach round-trips to Hawaii, 60,000 (on TWA); and two coach round-trips to Europe, 80,000 (on SAS to Copenhagen only).

Partners include TWA, Northwest, SAS, Thai, MarkAir, Horizon Air, and Reeve Aleutian Airways airlines; Hyatt, Red Lion, Westmark, and WestCoast hotels; Budget, National, and Alamo car renters; and Holland America/Westours.

AMERICAN

American's AAdvantage program has a unique elite level. Instead of using a set mileage qualification, American keeps track of its members and confers AAdvantage Gold status on the 2% to 3% with the most miles. From year to year, the number of miles required changes; American simply lets the member know if he or she has qualified. Gold members can upgrade any coach fare to first class for $20.

AAdvantage lets members claim awards on a regular "Plan Ahead" schedule, or an "AAnytime" program that waives capacity restrictions and blackout dates but requires double mileage to qualify for a ti et. American, like America West, tacks a 50% mileage surcharge during high s son on awards to Europe.

Minimum mileage requirements for coach round-trip is 20,000 miles; t coach round-trips to Hawaii, 60,000; two coach round-trips to Europe, 80,0 (October 1 to April 30) and 120,000 (M 1 to September 30).

AAdvantage's partners include Brit Airways, Singapore, Qantas, American gle, and Cathay Pacific airlines; Hilt Inter-Continental, Sheraton, Wyndh and Marriott hotels; Avis and Hertz renters; and Norwegian and Royal Vik cruise lines.

AMERICA WEST

America West's FlightFund autom cally sends members four 5,0 mile certificates for every 20, miles flown. If a flyer has insu cient certificates to cover a e tain ticket but enough mile his account to make up the f ference, additional certific can be ordered for $25.

FlightFund has an elite le the Chairman's Club, for fly who accumulate more t 30,000 actual flight miles or m than 40 segments in a year. pacity restrictions and black days can be avoided by us the Top Value award sched but the mileage requirem double, which isn't much deal compared to other prog

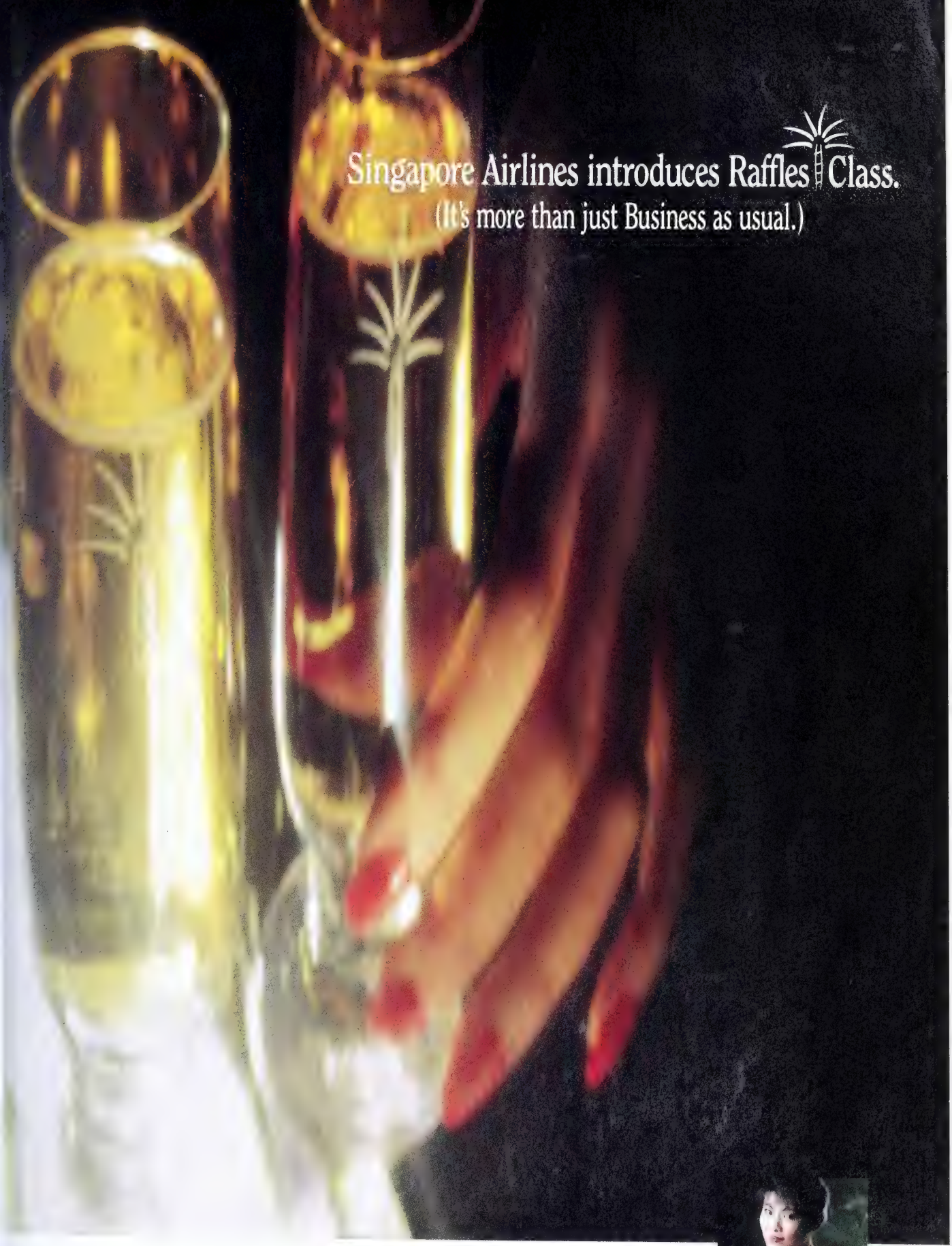
Minimum mileage requi ments stipulate one coach ro trip, 20,000 miles; two coach round-tri Hawaii, 60,000; and two coach round- to Europe, 120,000.

Partners include Air France, Singa Airlines, and Virgin Atlantic airlines; I bletree, Compri, Marriott, and Red I hotels; and Budget and Thrifty car ren

CONTINENTAL AND EASTERN

Eastern and Continental share a gram called OnePass. It features mileage requirements for people fl Monday through Thursday (Mile Saver) or during designated times of year (Off-Peak). A couple can fly ro trip to Europe for 25,000 miles le they're willing to go between Januar and March 15, or November 1 to 20.

OnePass allows members to buy 20% of the mileage required for a ticket at $20 per 1,000 miles. Meme also can lock in an award (a hedge ag changing rates) while they're still accu lating mileage. This insulates the me from increases in mileage rates for t years. OnePass has three elite leve-



We don't have a Business Class anymore. Instead, have Raffles Class. Where you'll enjoy the likes of Taittinger's Brut champagne served in glasses cially commissioned from Schott Zwiesel. So as you can see, it's more than just Business as usual.

SINGAPORE AIRLINES

A great way to fly

bronze, silver, and gold—for members who rack up 25,000, 45,000, and 75,000 annual miles, respectively.

The latest Eastern incentive, Business Break, allows business passengers who fly seven business-fare round-trips before March 1, 1991 (with restrictions on the days you fly) to earn two coach tickets to the Caribbean, Mexico, or Hawaii. Ten round-trips earn two first class tickets or three coach to those destinations, and 15 round-trips net three first class tickets on Eastern.

Minimum mileage requirements for OnePass are one coach round-trip, 20,000 miles (Mondays through Thursdays); two coach round-trips to Hawaii, 45,000 (off-peak); and two coach round-trips to Europe, 55,000 (off-peak).

Partners include Air Micronesia, Aer Lingus, Air France, Alitalia, Cayman Airways, Iberia, KLM, Lufthansa, Sabena, SAS, Trump Shuttle, Continental Express, and Eastern Express airlines; Aston, Camino Real, Radisson, Consort, Compri, and Marriott hotels; and National, Tilden, EuropCar, General, and Thrifty car renters.

DELTA AIR LINES

The Delta Air Lines Frequent-Flyer Program has two major drawbacks: Delta blacks out the entire summer for bonus travel to Europe, and awards are expensive. In all, 107 days of 1991 will be off-limits to people who want to fly to the Continent on frequent-flyer award tickets. Delta's awards for flights transatlantic and to Hawaii are among the most expensive for any domestic carrier.

Minimum mileage requirements for one coach round-trip is 40,000 miles; two coach round-trips to Hawaii, 70,000; and two coach round-trips to Europe, 110,000.

Partners include Air Canada, Air New Zealand, JAL, Swissair, Lufthansa, Singapore, Atlantic Southeast, Business Express, COMAIR, and SkyWest airlines; Hyatt, Trusthouse Forte, Preferred, and Marriott hotels; and National, Avis, and Alamo car renters.

MIDWAY AIRLINES

Midway uses a system that's trip-based rather than mileage-based. For members of FlyersFirst, each coach round-trip ticket earns one credit. There are no capacity controls, and mileage credits never expire.

Midway's plan is one of the best. Members who buy coach tickets at full fare can upgrade to confirmed first class at no extra cost. Depending on the routes traveled, members can turn relatively few miles into free tickets. And there are creative awards: For 25 credits, a member can receive an hour of time on Midway's 737 Flight Simulator.

There are two elevated levels. Members flying ten or more round-trips in a 12-month period receive membership in FlyersFirst Gold, which includes five free first class upgrades for even the least expensive coach fares. For 20 or more round-trips, members become FlyersFirst Platinum, with unlimited upgrades to first class.

Minimum mileage requirements are one coach round-trip, 10 credits; two coach round-trips to Hawaii, not available; and two coach round-trips to Europe, 55 credits (Sabena only).

Partners include Air New Zealand, Canadian International, Sabena, ALM Antillean, Cayman Airways, and Midway Commuter airlines; Hyatt and Omni hotels, plus Bolongo Beach and Divi resorts; and Budget and Thrifty car renters, American and Royal limousines, SuperShuttle, and ExecuCar.

FREQUENT TRAVELER

NORTHWEST AIRLINES

Northwest's WorldPerks uses what it calls a "Fly-Write Ticket" system. Every 20,000 miles, the club member receives 2 one-way 10,000-mile tickets. These are good for three years and can be collected and cashed in for higher-mileage flights.

WorldPerks lets members waive capacity controls and blackout dates in exchange for higher-than-normal mileage requirements. Members flying on purchased coach fares can buy first class upgrades for $20 to $60, based on mileage of the flight.

Northwest has an elite level, called WorldPerks Preferred, for flyers with 50,000 miles or more in 1990. Members receive a 25% mileage bonus, a series of first class upgrade certificates, and savings coupons for hotels and car rentals.

Minimum mileage requirement for one coach round-trip is 20,000 miles; two coach round-trips to Hawaii, 60,000; and two coach round-trips to Europe, 60,000.

Partners include Northwest Airlin[k], Alaska, Horizon Air, and USAir airlin[e]; Hyatt, Radisson, Westin, and Marriott H[o]tels; and National and Budget car renter[s].

PAM AM

Pan Am's WorldPass is the only progr[am] with a food benefit. Members can sel[ect] meals from the WorldClass Cuisine me[nu] of nine selections. Offerings includ[e] fruit-and-cheese sampler, Cajun tuna, a[nd] a half-pound New York strip steak.

There is an elite level called WorldP[ass] Platinum. By flying 30,000 miles in 12 co[n]secutive months, members receive fi[ve] one-class upgrades on all Pan Am flights.

For 20,000 miles, Pan Am will fl[y a] companion free when the member p[ur]chases a coach or business class ticket [to] travel Mondays through Thursda[ys]. There are also awards that accommod[ate] parties. For example, for 80,000 miles[,] member can receive four economy rou[nd]-trips for himself and three companions [to] travel in the continental United States.

Minimum mileage requirement for [a] coach round-trip is 20,000 miles; t[wo] coach round-trips to Hawaii, 40,000; a[nd] two coach round-trips to Europe, 60,000.

Partners include Pan Am Express a[nd] Pan Am Shuttle; Inter-Continental/For[te] and Sheraton hotels; Alamo, Avis, a[nd] Dollar car renters.

SOUTHWEST AIRLINES

Southwest believes in keeping it simple. America's quirkiest major airline has [the] quirkiest frequent-flyer program, [the] Company Club. Ten round-trips ear[n a] free round-trip and a fistful of dr[ink] coupons. That's it. No mileage stateme[nts]. No bonus awards. No partners. Southwest calls this unusual arrangement "The World's First Infrequent-Flyer Program."

Customers don't join and then accumulate credit; instead, they present cards [for] validation when they receive boarding passes. Once they've collected 20 stamps representing ten round-trips within 2 months, they mail in the card and join the club. From then on, it takes only eight round-trips to earn another ticket. Anyone flying 50 round-trips within 12 calendar months receives a Companion Pass that allows another traveler to fly free with the club member for the next year.

And unlike any other airline, Southwest doesn't care who uses the free trip. The customer can give the free pass to anyone.

Minimum mileage requirements are simple: one coach round-trip, 20 credits.

The Company Club has no partners.

TWA

TWA's Frequent Flight Bonus Program has whopping restrictions on its transatlantic awards. No travel is permitted between April 30 and October 1 in the [year].

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FREQUENT TRAVELER

of the minimum coach requirement.

There are two elite levels. A customer with 5,000 miles in a year becomes a Preferred Member and receives free business class upgrades and 10% mileage bonuses. Thirty thousand miles or four transatlantic flights in a year confers Privileged Member status, with all the Preferred Members' benefits plus all sorts of upgrades: domestic first class, international business class, and upgrades for a companion.

Minimum mileage requirement for one coach round-trip is 20,000 miles; two coach round-trips to Hawaii, 60,000; and two coach round-trips to Europe, 60,000.

Partners include New York Helicopter, Trans World Express, Air India, Air New Zealand, Philippine Airlines, and Alaska airlines; Adam's Mark and Marriott hotels; and Thrifty and Dollar car renters.

UNITED

United's Mileage Plus distinguishes between full coach and discount fares when it comes to upgrading: A member can upgrade a full coach fare to first class for 10,000 miles, but must spend 20,000 miles to upgrade a discount fare. And that applies only in the continental United States—upgrades on flights to Hawaii cost more.

Mileage Plus has two elite levels, Premier for 25,000 miles flown in 12 months, Premier Executive for 75,000 miles. Elite members can buy books of four upgrade certificates for $80.

Minimum mileage requirements set one coach round-trip at 20,000 miles; two coach round-trips to Hawaii, 60,000; and two coach round-trips to Europe, 80,000.

Partners include British Airways, Air France, SAS, Lufthansa, Alitalia, Swissair, Sabena, United Express, Aloha, KLM, and Iberia airlines; Westin, Sheraton, Hilton, Hyatt, and Kempinski hotels; and Alamo, Dollar, and Hertz car renters.

USAIR

The USAir Frequent Traveler Progra is not one of the better ones. It has awards to Hawaii, expensive awards to E rope for off-season travel only, and so downright bizarre restrictions on domes awards. For example, the domestic coa round-trip tickets awarded for 20,000 mi allow passengers to fly between six we ern states or between USAir's easte states, but not from one "zone" to the o er. In other words, passengers can go fr New York to Ohio or Nevada to Arizo but not from Georgia to California.

Minimum mileage requirement is coach round-trip, 30,000 miles; and t coach round-trips to Europe, 100,0 (with severe date restrictions).

Partners include USAir Express, France, Air New Zealand, Alitalia, Brit Airways, KLM, Lufthansa, Northwe Sabena, and Swissair airlines; Hilton, H att, Marriott, Omni, Radisson, Stouff and Westin hotels; and Hertz, Natio and Tilden car renters.

	AFFINITY CARD	FIRST CLASS UPGRADES FROM COACH	ELITE LEVELS	HOTEL CREDITS	CAR RENTAL CREDITS	ONE COACH TICKET	TWO COACH TO EUROPE	TWO COACH TO HAWAII	TIME LIMIT ON AWARD CERTIFICATES	BLACKOUT DAYS (MAX.)	TIME LIMIT ON MILEAGE
ALASKA	Yes	Every 10,000, no charge	Yes	500	500	15,000	80,000	60,000	3 years	4 ('91)	3 years
AMERICAN	Yes	$20 from full coach	Yes	500	500	20,000	80,000	60,000	None	28 ('90)	3 years
AMERICA WEST	Yes	10,000 from full coach	Yes	500	500	20,000	120,000	60,000	2 years	30 ('90)	None
CONTINENTAL	No	20,000	Yes	1,000	1,000 or 1,500	20,000	55,000	45,000	1 year	30 ('91)	None
DELTA	No	10,000	Yes	1,000	1,000	40,000	110,000	70,000	1 year	107 ('91) (Europe)	None
EASTERN	No	20,000	Yes	1,000	1,000 or 1,500	20,000	55,000	45,000	1 year	30 ('91)	None
MIDWAY	No	Free with full coach fare	Yes	1/4-1	1/8-1/4	10 credits	55 credits	N/A	6 months (recredit for fee)	49 ('91) (Europe)	None
NORTHWEST	Yes	$20-$60 or 10,000	Yes	500	500	20,000	60,000	60,000	3 years	33	None
PAN AM	Yes	20,000	Yes	500-1,000	500	20,000	60,000	40,000	1 year	27 ('91) (Europe)	3 years
SOUTHWEST	No	N/A	No	N/A	N/A	20 credits	N/A	N/A	1 year	19	None
TWA	Yes	10,000	Yes	500	500	20,000	60,000	60,000	1 year	167 (Europe)	None
UNITED	Yes	10,000/full fare 20,000/discount	Yes	500	500	20,000	80,000	60,000	3 years	39 ('91)	3 years
USAIR	No	10,000	No	500	500	30,000	100,000	N/A	None	8 ('91)	None

Art by Tom Saccomar

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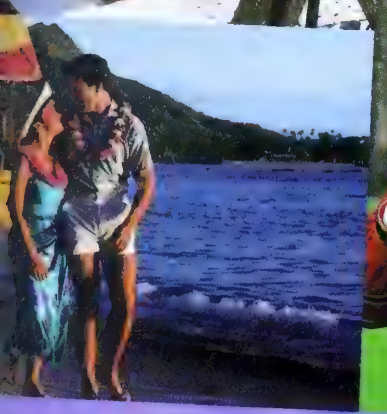

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THE CONCIERGE EXPLAINED

CLEARING UP THE CONFUSION ABOUT THOSE HELPFUL FOLKS WITH THE KEYS ON THEIR LAPELS

The day the Iraqi army invaded Kuwait, Jack Nargil, head concierge at the *Four Seasons* hotel in Washington, D.C., received an urgent telephone call: A Saudi Arabian official needed to contact a prince in the Saudi ministry, a guest at the hotel. But the prince wasn't in his room. Did Nargil know where he'd gone?

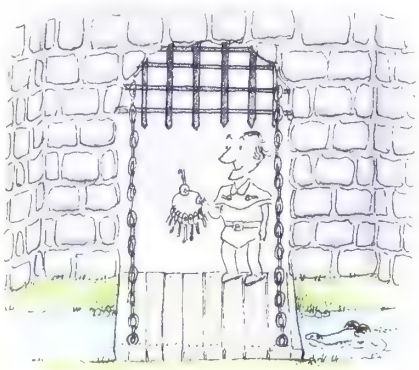
But of course. The prince had taken his family to the movies. Nargil got in his car, drove to the theater, and, with the aplomb of someone who has spent 11 years dealing with dignitaries, discreetly interrupted the prince's viewing of *Lethal Weapon 2* and had him phone home.

Just another day in the life of a hotel concierge.

A FRIEND IN NEED

To many an experienced traveler, a truly great hotel concierge is a trustworthy friend in an unfamiliar city. Omniscient in all local customs, he or she knows where to get really good bagels on Sunday mornings. Resourceful in the face of almost certain disappointment, he or she can secure choice seats for a show that's been sold out for months. Candid when he knows he's right, he'll tactfully advise against going to that hyped, overpriced restaurant in favor of one where the food's better and the prices less steep. And he performs these feats with the kind of effortless grace that hasn't been seen since Willie Mays roamed center field in the Polo Grounds.

Although the early history of the concierge is murky, it's believed the position first developed during the Middle Ages. Back then, the castle doorkeeper was also in charge of the keys and saw to it that the king, queen, and any royal guests were locked safely in their rooms each evening. When these medieval VIPs traveled the countryside, the doorkeeper went too, acting as something of a primitive travel agent by arranging itineraries and accommodations.



Eventually these doorkeepers began working in the grand hotels of Europe, where they were in charge not only of the individual room keys but also of seeing to it that each guest was well cared for.

While concierges flourished in Europe, it wasn't until the mid-1970s that several hotels in San Francisco became the first to inaugurate the position in the United State

"Back then, guests would ask me w a concierge was, invariably mispronou ing the word as well," recalls Holly St head concierge at the *Grand Hyatt S Francisco* at Union Square since 1976. " used to leave messages on their pillo telling them about the service." As ti passed, however, American travelers came more familiar and comfortable w the concept, and today most major ho have one or more concierges on staff.

COMING TO AMERICA

One reason why it's no longer necess to leave notes on pillows is Les Clefs d (Golden Keys), an international asso tion of concierges founded in 1929 by F dinand Gillet in Paris. There are 4,0 members worldwide, including about in the United States, and their badge membership—a pair of crossed gol keys worn on each lapel—is a fami sight to most experienced travelers. M bership in Les Clefs d'Or is strict and cludes a minimum of five years in the tel industry (three as a concierge), let of recommendation from two current a ciation members, and a position locate the hotel lobby. Concierges who w solely on private VIP floors or in of buildings, apartment complexes, or vate clubs are not eligible for meml ship.

Japanese hotels have no tradition c parable to the concierge. The closest the traditional *ryokan* inn—still found day—where every room came with a sonal maid who appeared at the cla one's hands. In recent years sev Japanese hotels, notably the *New Otan* Tokyo, have instituted Western-s concierge service. Others, such as

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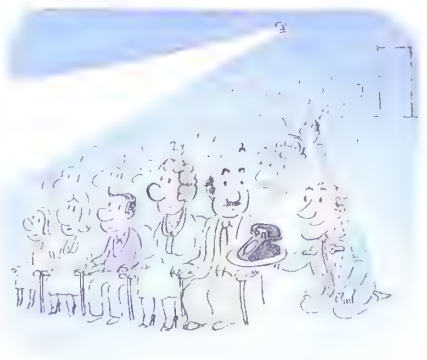

Seiyo Ginza, offer a personal secretary, available at the touch of a button on the room telephone.

"A good concierge should be the hotel guest's eyes and ears," says Marjorie P. Silverman, chief concierge at the *Inter-Continental* hotel in Chicago and president of Les Clefs d'Or USA. "He or she should be like the innkeeper of old who stood in the lobby greeting guests and personally seeing to their needs."

THE NERVE CENTER

In most European hotels, the concierge desk is located prominently in the lobby. In addition to the requisite maps, guidebooks, and tourist brochures, most desks also include a computer terminal for room messages, a ticket-printer for making airline and train reservations, even a fax machine. But the true heart of any concierge desk is the logbook and diary. Here, entered by hand, are the preferences and proclivities of every guest who uses the concierge's services, kept close at hand for easy reference the next time the guest returns to the hotel.

As with champagne and pizza, the concept of the concierge was "Americanized" in its trip across the Atlantic. In Europe, for instance, it can take years for a man to work his way to head concierge. Once there, he's likely to stay until he has to be carried out. And because concierges have traditionally been trained via apprenticeship, to this day almost all of them are men. (With the 1982 opening of the International Concierge Institute in Paris, more women are expected to join the ranks in coming years.)

In the United States, on the other hand, the position is often seen as just another step up the corporate ladder. American concierges are more likely to move from one hotel to another and from one city to the next as opportunities arise—a sacrilege in much of Europe. And because concierges are hired in much the same way as any other position in the hotel, almost half of all concierges in the United States are women.

Despite these differences, the basic duties of the concierge remain remarkably

FREQUENT TRAVELER

similar, no matter where the hotel. The normal list of responsibilities includes making restaurant reservations, calling for limousines, ordering flowers, procuring theater tickets, and having letters typed, copied, faxed, and so forth.

The concierge can claim greatness by satisfying the truly unusual request. A guest once asked the Four Seasons' Nargil to hire several musicians and arrange studio time because he'd decided to record some songs he'd written. Diana Nelson, of the Grand Hyatt San Francisco, once tracked down oxen gallstones for a guest who wanted to bring them home to Japan, where they're considered an aphrodisiac. Silverman in Chicago once baby-sat a pet rabbit for a guest who was taking the bar exam. And Harry Miles, head concierge at the *London Marriott*, recalls the two Americans who telexed requesting he arrange a fly-fishing expedition on a stretch of river in Hampshire that they'd read about.

"I figured they were experienced sportsmen," Miles says with a laugh. "Turns out they'd never fly-fished before in their lives. But they had a good day anyway—which is not the same as saying they caught any fish."

REQUESTS NOT HANDLED

Then there are the requests for services that concierges at even the best hotels cannot fulfill. "You develop a sixth sense about these things," says Tom Wolfe, head concierge at New York's *Plaza* hotel. "If someone wants a massage, fine. But procuring is illegal so if they also ask for a 'pretty' masseuse who'll give them a 'full-body' massage, you have to say no politely but firmly."

Sometimes even legitimate requests are impossible to fulfill due to timing and the nature of what's being asked. It's then that diplomacy and negotiation come into play. "If I can't fill a last-minute request for seats to a sold-out show, I'll suggest that the guest either see something else or go the next night, when I'll have more time to pull some strings and get them tickets," says the Inter-Continental's Silverman.

There is never a charge for services performed by a concierge, although any costs incurred, such as a broker's fee for a ticket to a sold-out show, are added to the guest's bill at check-out. And while they're not expected, gratuities are usually accepted.

Tipping can be problematic, however, since, unlike with waiters, there's no universally accepted formula for determining how much is enough. Give what you feel comfortable giving, say most concierges. If, during a guest's week-long stay, a concierge makes several dinner reservations, arranges a rental car, and suggests a couple of sightseeing outings, $10 to $20 will suffice. For services above and beyond the call of duty, such as when Silverman arranged to have a specially made bath robe sent to Bahrain, estimate the value of the service and tip 10% to 15% if that value is over $100.

Many hotel guests, particularly men, have traditionally been reluctant to tip female concierges. "So instead of cash they get scarves, perfume, and enough chocolate to open a chocolate shop," says one male concierge. "But I don't know one female concierge who'd be insulted to be given money as a thank-you."

GETTING PERSONAL

Other guests sometimes thank a concierge in a more personal way. Wolfe recalls receiving a beautiful piece of Irish crystal after he'd arranged an anniversary dinner for a couple visiting from Ireland. Stiel framed the glittery picture of heels and flowers given to her by a thankful six-year-old. "The nicest thing about this job is that you make connections when you least expect it," she says.

For most concierges, the most appreciated gratuity is a simple thank-you card, especially when a copy is sent to the hotel general manager or—better still—to the company president.

Peter Holloway, head concierge at the *Hyatt Regency* in San Antonio, says conclusively: "Eventually, a note sent to my boss will be worth a lot more to me than a twenty-dollar tip."

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TIPS ON TIPPING

SOLVING THE MYSTERIES ABOUT HOW MUCH TO LEAVE AND WHEN TO LEAVE IT

Fax machines and cellular phones have solved some of the communications problems of modern business travel, but we've yet to get a definite answer to a vexing low tech question: Whom do I have to tip and how much am I supposed to give? Here, however, are some generally accepted business class guidelines to move you smoothly and easily through a typical day.

A cab is summoned for the ride to the airport. Assuming a safe arrival, give the driver 20% of any fare under $5, 15% of fares over $5, a bit more if astute driving lets you make a flight that otherwise would have been missed. If you share a limo between office/hotel/home and airport, your part of the tip is a buck.

At the airport, in the event that you can't carry all your bags on board, give the skycap $1 per bag for curbside check-in. Except for restaurants and lounges, airports and planes are pretty much tip-free zones. But upon arrival, you may want to reward the chatty person who drives the van from airport to rental car lot: Some travelers tip them, most don't; $1 should make them happy. Depending on distance, $1 or $2 is appropriate for the driver of the vehicle hotels send for arriving guests.

The hotel itself represents a veritable minefield of potential tipping gaffes. The porter who delivers luggage to your room receives $1 per bag, the same amount recommended for the bellman who carries that luggage from your car or taxi into the lobby. Room-service waiters get as much as regular waiters, 15% to 20% of the bill above the room-service charges that are usually tacked on.

PERSONAL SERVICES

Although some travelers still draw the line at tipping chambermaids or housekeeping staff, those who do leave $1 or $2 per night, depending on the quality of the accommodations, and it's your call whether to pay day-to-day or upon checkout. Housekeepers should definitely get a dollar or two each time they perform some extra service, like mending or unpacking.

You don't need to tip the person who delivers dry cleaning or laundry, but the doorman gets 50¢ or $1 every time he hails a cab for you, even if the cab has been waiting by the front door. Haircutters in the posh establishments in and around hotels receive 20% of the tab. Don't forget to give the cashier $1 for the shampooer.

Tipping-wise, the concierge—whether he or she serves the entire hotel or is stationed in special "executive" areas—presents the most mystifying challenge. This is partly because the position (also known as a "guest services manager" and by other aliases) is still a relatively new concept in U.S. hotels, and also due to the fact that their performances often utilize unquantifiable attributes like connections and local savvy. So when the subject of proper compensation is broached, concierges themselves affect the-guest-knows-best kind of vagueness.

In general, calculate the worth of what the concierge does for you and tip accordingly. If you have no contact with him, don't give him anything. A relatively mundane task, such as changing travel arrangements or making restaurant reservations, may be worth $2 to $5; a more complicated or delicate transaction, like finding Super Bowl tickets or buying an anniversary gift for an overlooked spouse, rates something well into double figures. Tipping the concierge each time he or she performs a service is the mark of a greenhorn. However, feel free to give the concierge $1 at check-in to prime the pump of attentiveness. If you have contact with several concierges during your stay, leave an envelope containing the offering with whomever is on duty at check-out time and count on the concierge's honor for an equitable distribution. To reward one special

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concierge, write his or her name on the envelope. For extra credit include a brief thank-you note. Do not tip any manager who works behind the main registration desk, even if he or she shows you to your room upon arrival.

A quick review of restaurant tipping etiquette: A waiter should get 15% for adequate service, 20% or more for an extraordinary performance. Give the captain 5% of the bill only if he or she is conspicuously useful or attentive. A wine steward should receive 10% of the wine bill. A dollar apiece goes to the sundry restaurant attendants: valet parking, cloakroom, and washroom.

NO TIPPING ALLOWED

The preceding guidelines apply only within the U.S. and Canada. Other lands have other conventions, and some countries disdain tipping in any form.

The Far East is currently the paramount nontipping corner of the globe. In Japan, a tip is considered an affront, and in China it is illegal. In New Zealand, restaurants and hotels add a service charge, and no more is expected, and offering an Australian a tip for anything but the most extraordinary treatment is tantamount to standing up and singing "The Star-Spangled Banner."

Israel used to belong to the no-tipping bloc, but waiters, doormen, and bellmen now expect American-size gratuities. Although tipping is still an official *nyet-nyet* in the Soviet Union, discreet amounts of hard currency or token gifts (especially cigarettes) tend to inspire more attentiveness in restaurants and hotels.

European hotels and restaurants generally add service charges to restaurant and hotel bills, but supplementary rewards are often the custom of the country. In Germany, France, Italy, Spain, Portugal, and Switzerland, leave the waiter the coin change from your check, or 5% if you desire. Extra tipping is less de rigueur in the United Kingdom, Ireland, Belgium, the Netherlands, and Scandinavia. Keep in mind that restaurant bills in Europe may or may not include a service charge; if you have the slightest doubt, ask.

WHEN HEADING SOUTH

Generally, to travel south is to enter the land where the gratuity is more than welcome. In Mexico and the rest of Latin America, tips are expected not only by the normal hotel/restaurant/airport personnel but from freelance service-providers like bag carriers, windshield washers, car watchers, and others for whom a small tip—perhaps the equivalent of 25¢ to 50¢—is usually sufficient.

The preceding guidelines are culled from the collected wisdom of worldwide business travelers. But they are only guidelines, and as such are certainly subject to modification to express gratitude for services above-and-beyond-the-call or retaliatory pique. But observe them and you'll walk a middle road where you'll safely avoid the embarrassment of being taken for a hick, a skinflint, a parvenu, or—perish the thought!—a tourist.

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FREQUENT TRAVELER

THE TRAVELING COMPUTER: NOTEBOOK SIZE, DESKTOP POWER

PORTABLES ARE FINALLY LIVING UP TO THEIR NAME

ess has truly become more in the world of computers, where the word rtable" used to be stretched to its lim- While it was humanly possible to carry 0-pound computer the size of a mi- wave oven, a whole day of toting such a athan left a business traveler feeling as ıe or she had bench-pressed Arnold warzenegger.

'ortunately, today's executives don't e to go into special weight training to oy sophisticated personal computing en they're away from the office. The st generation of portables wraps up all number-crunching, data-storing power he familiar desktop or home PC in a :ery-powered package that's about the of a three-ring notebook—averaging ut 11.5 inches wide by 9.5 inches deep 2 inches high and weighing from four even pounds. For the ultimate space er, there's even a pocket-size computer checks in at just one pound.

SACRIFICING NOTHING

What's revolutionary about these tiny ıders is how closely they match the formance of their full-size siblings. one who's accustomed to using an l or compatible PC can be on-line and ning programs in the field or on a ıe in just minutes, without having to ifice functionality. And computer neo- tes won't be far behind.

his user-friendliness is due to the fact the machines described below em- the same microprocessors found in virtually all full-size PCs. Functioning as the notebooks' brains, these chips—either the venerable 8088, used in the original IBM PC/XT, or one of its descendants—determine the computers' performance levels. (Higher microprocessor numbers indicate more recent, and more powerful, chips.) Notebook computers fall roughly into two categories: those comparable to XTs, popular as home computers, and those that offer the souped-up power of ATs. Intensive applications such as spreadsheets and data bases run faster on the more powerful (and costlier) AT-compatible computers.

A final plus for users is that, with the exception of two machines, these notebook computers all use the universally familiar MS-DOS operating system. In plain English, this means that notebooks offer two inestimable boons to computer jocks and nontechies alike: an operating environment that's almost identical to that of an office-bound PC, and full software compatibility.

Notebooks aren't intended to replace full-size PCs, but rather to extend their electronic reach into environments previously off-limits. Designers have taken desktop computers on the road by jettisoning bulky components in favor of more compact devices. Conventional CRT screens and 5.25-inch floppy disk drives are gone, replaced by advanced monochrome liquid crystal display (LCD) screens and an assortment of miniature high-tech gizmos, including new disk formats, silicon drives a hundred times faster than hard disk drives, and solid-state integrated circuit (IC) memory cards that are faster yet.

EXPERTS: TAKE NOTE

When first looking at notebook computers, even experienced users need to realize how these changes can affect their computing habits. For instance, the proportion of height to width (known as the aspect ratio) of a notebook's screen may change as the shape is stretched to fit the machine's dimensions, resulting in a slight distortion of the characters. This poses no serious problem for applications like word processing, but it could alter the appearance of graphic data. Users who primarily intend to run graphics programs should be prepared either to deal with pie charts that may look more like ovals than perfect circles or to choose a notebook whose screen presents images more to their liking.

Likewise, users should consider screen resolution, illumination, the number of gray values available, and the graphics standards supported (CGA, VGA, or EGA)—which vary from model to model—before making their purchase.

STORAGE PLUS

The options for data storage are even greater. Some notebooks use 3.5-inch, 1.44-megabyte (M8) floppy disk drives, an industry standard already firmly established in desktop units. The significant advantage here is the availability of the

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FREQUENT TRAVELER

full range of commercial software. Other manufacturers, eager to cater to consumers looking for the smallest and lightest computers possible, are pioneering new standards, such as 2-inch, 720-kilobyte (K8) floppy disks, or IC "disks" the size of credit cards. While these devices further save size and weight, there may be a trade-off in the availability of software in the new formats. Manufacturers promoting these storage formats are diligently enlisting the support of major software publishers to provide compatible editions of the most popular business, productivity, and word processing programs.

In addition to the exotic technologies forming the backbone of portable design, the notebooks share a basic configuration that presents users with a full-size keyboard laid out in the traditional QWERTY arrangement in the machine's bottom half, and an LCD screen housed in the hinged top. Since communicating with other computers is an essential part of a notebook's job, each comes bundled not only with an MS-DOS operating system but also with communications software, such as LapLink III, to enable direct transfer of files between computers. In addition, these computers come with an assortment of input and output ports to permit connections with peripheral devices such as printers or auxiliary disk drives. Most are capable of accepting an optional modem for data transmission over telephone lines.

The power for all this magic is supplied by removable, rechargeable NiCAD battery packs or by standard alkaline batteries. Although notebook computers can prolong the time between battery changes through energy-management software, estimates of battery life should be regarded as optimistic. Since prolonged use of power-intensive applications also can affect life span, it's wise to carry spares to avoid running out of juice in the third hour of a five-hour flight.

SELECTING SMALL

The following is a roundup highlighting the basic features of the most recent crop of notebooks.

Compaq's notebook computer models offer users the choice of XT or AT performance, along with several memory and storage configurations. The Compaq LTE and the LTE/286 models all run for 3.5 hours on NiCAD batteries, support CGA graphics, display on a 9-inch (diagonally measured) back-lit screen, and come equipped with a 3.5-inch, 1.44 MB floppy disk drive and 640 KB of random access memory (RAM). The LTE Model 1 ($1,999) and the Model 20 ($2,699) can be expanded to handle 1 MB of RAM; in addition, the Model 20 augments the floppy disk drive with a 20 MB hard drive. The two LTE/286 models provide the extra power of AT level computing, along with a RAM capacity of 2.6 MB. The LTE/286 Model 20 ($3,499) and Model 40 ($3,999) come with 20 and 40 MB hard disk drives, respectively.

The attention-grabber of the **GRiD** 1810 ($2,895) is a removable 20 MB hard disk drive. Exchanging data between 1810 computers is simply a matter of swapping drives; users also can transfer files to an office-bound PC by plugging the drive into an optional "desktop receiver" module, which treats the unit like any standard internal storage device. The 1810 has 1 MB of RAM (expandable to 2 MB) and a 10-inch diagonal EGA display. It will operate for about two hours on a single NiCAD pack.

A GENERATION LATER

This fall, **NEC** introduced the UltraLite 286V ($3,699), a second generation, AT-level version of the original UltraLite. For memory storage, the 286V relies on an internal 20 MB hard disk drive and a standard-size, external 3.5-inch floppy disk drive that can be disconnected and left behind to save weight on the road. In addition, there's a slot for NEC's proprietary IC cards, suitable for either file storage or third-party software (such as Lotus 1-2-3, WordPerfect 5.0, XyWrite III, and Microsoft Works). Outfitted with 1 MB of RAM (expandable to 5 MB), the 286V displays VGA graphics on a 10-inch back-lit screen and operates for up to three hours on a NiCAD battery cartridge.

Aptly named for its 4.4 pound weight, the original UltraLite ($1,499) is the only notebook that comes with its own modem

already built in. It provides 90% of T performance, 640 KB of RAM, an 8.5- 4.5-inch CGA-drive. There's also a vers that comes with a 2 MB silicon dr ($1,999). A fully charged NiCAD batt pack will power either computer for ab two hours.

Brand-new and astonishingly comp the **Poqet** PC ($1,995) may prove to b computers what the Walkman was stereo equipment. The Poqet is ab one-quarter the weight (1 pound) and the size (8.75 inches wide by 4.3 inc deep by 1 inch high) of the next larg notebook, making it a clear choice those looking for full XT functionalit the smallest possible package. Combin an 8-inch, CGA-compatible screen wi keyboard that's 80% of full size, it can into a pocket or purse just as easily briefcase. The internal memory inclu 512 KB of RAM; disk drives are suppl ed by two IC card slots, which can acc either applications programs from a d leading software publishers (including tus, WordPerfect, and XyQuest) or a v ety of RAM storage cards up to 1 each. Power is provided by two ordi AA alkaline batteries, with an estim life span of 100 hours.

Although **Psion's** three notebook co puters share the same options (NiC cartridges or eight AA alkalines), only MC 600 ($2,995) uses the conventi command-driven MS-DOS operating tem. The unique MC 200 ($1,195) MC 400 ($1,795), which feature full DOS and Apple Macintosh file com bility, use an innovative graphic inte to access a system of on-screen sym icons, and pull-down menus. RAM si 128 KB for the 200, 256 KB for the and 768 KB for the 600; in addition, 600 is supplied with an internal solid-s 1 MB RAM disk. All Psion MCs c with four slots for IC cards, providin to 4 MBs of total storage. Battery spans range from 75 hours for the MC to 60 hours for the 400 and 20 hour the 600.

MODULAR MAGIC

Powerful and lightweight, **Sharp's** PC-6220 ($3,995) is distinguished b innovative modular design that simp making connections with optional pe eral devices by providing a system of venient plug-in sockets—and thus e nating tangled cables. The PC-6 powered for two hours by a NiCAD provides AT performance, a VGA-co ible, 10-inch back-lit display, 1 M RAM (expandable to 3 MB), and a 2 hard disk drive.

The **Tandy** 1500 HD ($1,999), i duced this fall, is the first notebook t equipped with both standard floppy hard disk drives and still breaks the

und barrier. Along with the 3.5-inch, 4 MB floppy disk drive and the 20 MB rd drive, the XT-compatible 1500 HD ers 640 KB of RAM (expandable to 1.64), a 7.5-inch-by-4.8-inch back-lit dis- y that supports CGA graphics, and a CAD battery life rating of 3.5 hours.

ust now reaching stores, the Travel- te 2000 ($3,999) is a new AT-compati- notebook from **Texas Instruments**. e 2000 is equipped with 1 MB of RAM er-expandable up to 3 MB), a 20 MB in- nal hard disk drive, and a 10-inch LCD t supports VGA graphics. Life span of NiCAD battery pack is two hours.

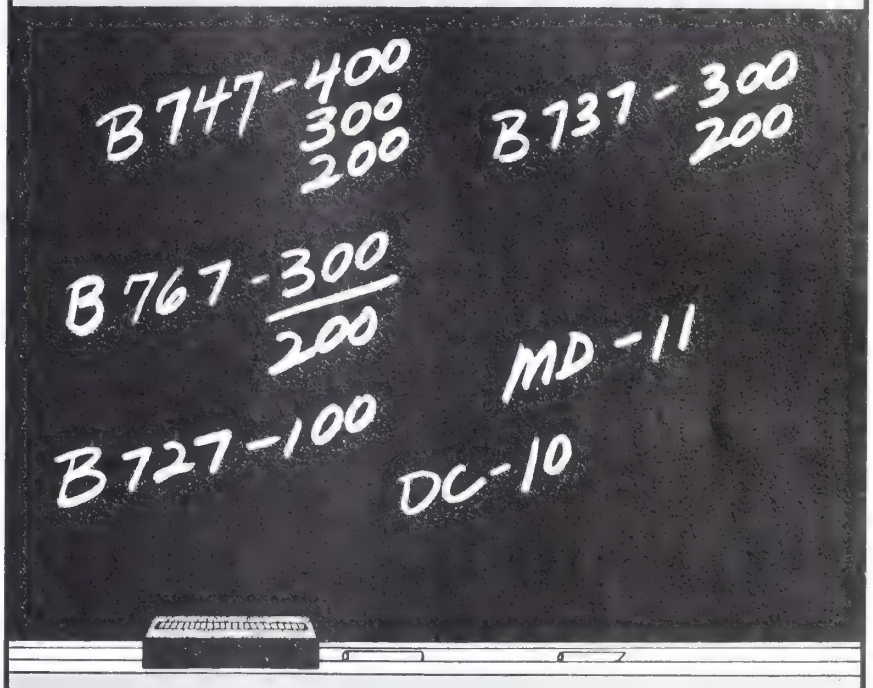
POWERFUL YET COMPACT

Toshiba is expanding its line of table computers with its first notebook ry that offers AT-level performance, T1200XE ($3,199). It's a machine for rs whose primary need is power, not e. Fitted out with 1 MB of RAM (user pandable to 5 MB), the T1200XE has a -inch, 1.44 KB floppy disk drive as well a 20 MB hard disk drive, a 7.75-by-4- 7/8-inch side-lit CGA screen, and a CAD battery life of about two hours. It is two XT compatibles in the Toshiba ebook family, the T1000SE ($1,699) the T1000XE ($2,399). Both offer 9- n diagonal screens with CGA graphics, IB of RAM (expandable to 3 MB), and iCAD battery operating time of about hours. The major difference between sibling models: The 6.2-pound 00XE has a 20 MB hard drive in place he 5.9-pound T100SE's 3.5-inch, 1.44 floppy disk drive.

When it entered the notebook category 989 with the introduction of the Min- ort, **Zenith** also unveiled its 2-inch, KB floppy disk format, developed to uce the weight, size, and power con- ption of a 3.5-inch disk drive without ifying performance. Along with the drive, the MinisPort Model 1 ($1,799) boasts 1 MB or RAM (expandable to B), a 9.5-inch diagonal back-lit CGA- patible screen, and an ultrafast silicon drive that can store up to 360 KB of and significantly reduce power con- ption. The Model 2 ($2,399) is identi- but has a full 2 MB of RAM and a imum silicon drive capacity of 1.36 . NiCAD battery life for each model is at three hours.

his summer the MinisPort was joined he MinisPort HD ($2,399), which is plied with a 20 MB hard disk drive (in e of the 2-inch floppy disk drive) and with a detachable external 3.5-inch, MB floppy disk drive. The MinisPort is the same size and weight as its old- blings and comes with 1 MB of RAM which 360 KB can be configured as a n disk drive), and a 9.5-inch diagonal -lit CGA-compatible screen. ❐

WELL ROUNDED NUMBERS



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FREQUENT TRAVELER

WHERE THE CARS ARE

WANT TO RENT A FIFTH AVENUE IN PHILADELPHIA OR A TERCEL IN TACOMA?

For business travelers, so much of flying from city to city can be planned to the T. It's easy to book on a favorite carrier, pick a favorite seat assignment, and order a special in-flight meal.

But one wild card remains: at the car rental counter, where it's hard to predict what kind of vehicle awaits. But that doesn't have to be. There are tricks to the automobile rental trade, and one is knowing who fraternizes with whom.

None of the major rental agencies can guarantee a specific make of automobile, right down to the color (although Avis and National will do their best to accommodate customers who book far enough in advance). They can, however, assure the size of the car, and when that category is not available will provide a larger model at no extra cost. In most cases, standard features include automatic transmission, power controls, and air conditioning.

All the major companies specialize in models from specific manufacturers. For instance, if you want to drive a Lincoln Town Car, Budget has the largest stock. And if a Ford LTD is your style, Hertz has thousands.

In this age of corporate consolidation, car rental companies have aligned themselves with automobile manufacturers. Detroit's Big Three, in fact, own pieces of some rental car companies, and that partnership is reflected in the agency's car inventory. The rental business is a good marketing tool; manufacturers hope you'll like the rental so much that you'll purchase one for your very own. So, for your upcoming trip, consider the following guide.

By 1991 most of the cars **Alamo** (800-327-9633) stocks will be made by General Motors. That means an abundance of Buicks, Cadillacs, Pontiacs, Chevrolets, and to a lesser extent, Oldsmobiles. More specifically, if travelers want an economy-size or compact car, they can count on renting a GEO Metro or a GEO Prizm. Chances are, a midsize car will be a Buick Skylark with two doors or a Buick Century with four. The luxury models are Buick Park Avenues, and the top of the line is the Cadillac Brougham.

A FRIENDLY ALLIANCE

With **Avis** (800-331-1212), there are no surprises. General Motors owns a stake in this New York-based outfit; in turn, 70% of Avis's fleet are GM cars. Other makes in the 130,000-car stock are Chryslers, Fords, Toyotas, and Nissans. Expect more Fords and Toyotas on the West Coast.

Avis's business travelers most often prefer a midsize or large car with four doors. To fill the bill, Avis stocks the Plymouth Acclaim, Pontiac Grand Am, Oldsmobile Cutlass, Mercury Sable, Buick Century and Regal, and Pontiac 6000. Smaller cars include the GEO Metro, Plymouth Sundance, Chevrolet Cavalier, Dodge Shadow, and Pontiac Sunbird. And for luxury driving, a traveler might zoom away in a Buick Park Avenue, a Chrysler Fifth Avenue, a Dodge Dynasty, or a Cadillac Sedan De Ville.

King of the road at **Budget** (800-527-0700) is the Lincoln Town Car. There are 25,000 of them in a stock of 135,000. The company says business travelers love the car.

Budget's midsize cars [illegible] mostly Mercury Topazes [illegible] compact cars are Mustangs [illegible] the smallest autos are Mercury Tracers; and its full-size line is composed of [illegible] Mercury Cougar and Sable and Ford Taurus.

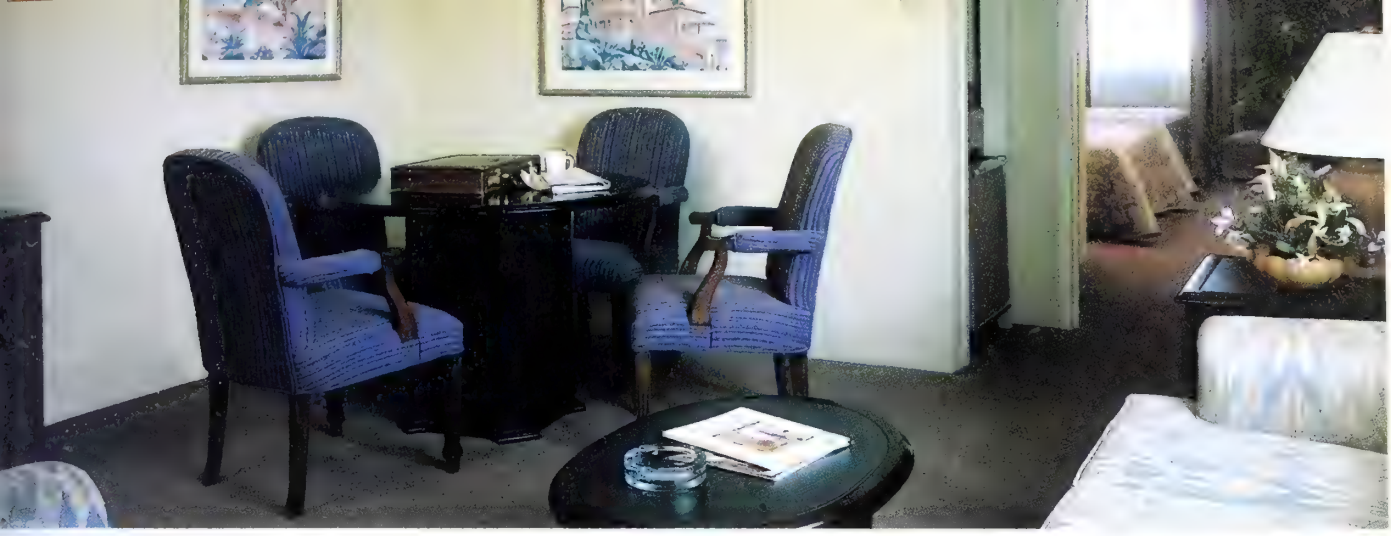
Hertz (800-654-31[illegible] the granddaddy of the [illegible] rental companies, rents mostly Fords. The odds [illegible] pretty good that in the mid-size to full-size range—[illegible] most popular size selected by the company's business travelers—the vehicles available will be Ford Tauruses or Tempos. The compact car of choice is the Ford Escort.

And it wouldn't be unusual to see a Ford Probe, a Mercury Sable, or any number of premium cars such as the Ford LTD or Mercury Grand Marquis pull out of a Hertz lot. The luxury-mobiles are Lincoln Town Cars and Continentals. Foreign makes include Volvos.

National (800-CAR-RENT), like its competitors, tends toward American models, especially those made by General Motors (a part owner) and to a lesser extent Chrysler. The range of full-size cars is dominated by GM makes: everything from the Pontiac 6000 LE to Buick Century to Cutlass Supreme. The predominant cars in the luxury class are Cadillacs (Broughams, De Villes, and Fleetwoods) and Buicks (Electras, Park Avenues, and Reattas). A midsize car may be anything from a Plymouth Acclaim to a Dodge Spirit.

Thrifty (800-FOR-CARS) is a Chrysler company, so it follows that a majority of this rental purveyor's 35,000-car fleet are Chryslers. The only hitch is that many of Thrifty's outlets are franchises, where owners can offer whatever cars they want. Nevertheless, Chryslers predominate in Dallas, for instance, almost all the automobiles available are Chryslers, highlighted by that manufacturer's luxury Fifth Avenue and New Yorker.

Illustration by Peter Fasano



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FREQUENT TRAVELER

SKY-READINGS

THE RIGHT READ CAN MAKE A LONG FLIGHT VERY ILLUMINATING

The primary goal of any business trip clearly is to get the job done, but it's hard to completely ignore the experience of a new environment along the way. And one of the best ways to enhance and expand your own enjoyment of an unfamiliar place is to read a bit about it in advance, which also can help pass otherwise unproductive flying time.

Suggesting good travel guidebooks is a little too obvious, for while the best of the guides may be perfect for picking out a specific restaurant or locating a local monument, guide writers seldom capture the unique flavor of time and place. Far better to concentrate on novelists who have synthesized a locale in the course of spinning a terrific tale, one that in its telling also illuminates the underlying spirit of a certain site.

THE LITERARY APPLE

It's hard to think of a better book to illustrate this point than Tom Wolfe's deservedly popular *Bonfire of the Vanities*. No modern novel so vividly captures the chasm that divides rich and poor in New York City these days, as it brilliantly satirizes the Big Apple's devastating problems and insane joys. Wolfe actually anticipated many of New York's current catastrophes and confrontations, and it won't take too much reading of recent newspaper headlines to recognize some of the novel's fictional population.

Less socially conscious but no less fun is Judith Krantz's fast-paced *I'll Take Manhattan*. For a traveler headed to New York, it captures the glamour and glitz of New York's high-powered publishing arena, while giving readers a sense of the magnetism that Manhattan holds for the determinedly upwardly mobile. Krantz was born in New York, and she certainly knows the landscape of the urban rich and romantic.

Finally, a tiny paperback perfect for plane reading is *Here Is New York*, by the late E. B. White. From one of *The New Yorker*'s most stalwart contributors over the decades, this is a meditation about the varied achievements that have occurred in the city over the years.

For flyers heading for the opposite coast, Gore Vidal, a master of historical fiction, describes how Hollywood became the glamorous movie capital of the planet in his most recent book, appropriately titled *Hollywood*. The story begins in Washington, D.C., but soon moves west to the orange groves around Los Angeles. Vidal paints such a vivid picture of the old days in L.A. that it's hard to believe that he wasn't personally around at the time.

For a more contemporary view of Los Angeles, Elmore Leonard's *Get Shorty* is indispensable. This is the very latest street-smart Leonard creation that recounts the adventures of a Miami loan shark who takes several unconventional meetings in the course of trying to become a major player in the West Coast film biz.

Another best-selling novelist who has evoked Los Angeles with special skill is Dominick Dunne, in *An Inconvenient Woman*. For most of last summer, he had folks on both coasts trying to guess who were the real-life inspirations for his fictional Angelenos, many of whom were "friends" of Ronald and Nancy Reagan. Also worth reading on a cross-country flight heading west is Joan Didion's *Play It As It Lays* and the undervalued *Deer Park* by Norman Mailer.

And then there are the perfect in-flight forays into the Los Angeles underworld that forms the background for Raymond Chandler's detective yarns. These are incomparable diversions for fans of Sunset Boulevard as it existed during the 1950s, and none is better than *The Long Goodbye*, detailing the exploits of that cynical shamus Philip Marlowe.

Los Angeles is hardly unique in having a "signature" detective novelist: Just up the coast in San Francisco the characters who populate the tales of Dashiell Hammett understand the special flavor of the City by the Bay. In such classics as *The Maltese Falcon*, private eye Sam Spa[de] sonifies that fog-shrouded feeling t[hat] made San Francisco the least re[pro]city in this country.

The picture of San Francis[co] Howard Fast paints in *The Immigra[nts]* vides an accessible perspective for ers fond of the long view, while rapid perusal of Jack Kerouac's *The raveans* or *The Dharma Bums* can nate the world of the Beats that North Beach a legend beginning mid-1950s. A lighter look at San Fr[an]is available from Alice Adams, who el *Rich Rewards* is set in what the calls "that spoiled and lovely city."

BEST OF BEANTOWN

Before leaving the subject of de[s]with a single urban identification, ers headed for Boston certainly sho[uld] come familiar with Spenser, Ro[bert] Parker's ultraurbane literary sleuth roams the historic terrain from Ba[ck] to the North End, everyone's favo[rite] quotes obscure poetry, offers p[oor] hints on the preparation of Italia[n] and hardly ever is at a loss for a wi[se]cra in a tight spot. *Stardust* is the mos[t re]cent installment of Spenser's adventu[res] Beantown.

For a less frantic look at Americ[a's] upstanding city, *The Bostonians* by [Henry] James offers the kind of view of [Bos]ton that contemporary readers seld[om] counter. Similarly, *The Late George A[pley]* John P. Marquand, subtitled "A N[ovel] the Form of a Memoir," never fa[ils] move first-time readers. It also [pro]view of Boston from behind the la[ce] parlor curtains.

And for the most literate evocat[ion] Chicago, it's hard to go wrong with Bellow book; *Humboldt's Gift* a[nd] *Dean's December* are particularly [good] choices. For more earthy images [of] Windy City, Studs Terkel's *Divisi[on] Street* quickly gets a traveler's biorhythm [in] that special Chicago pace.

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FREQUENT TRAVELER

EASING THE AIRPORT COMMUTE

SOME SUGGESTIONS FOR A SANE TRIP TO AND FROM THE PLANE

Whether or not today's skies are truly friendly is subject to debate. But nobody disputes that traveling to and from the airport remains downright unpleasant. Rock-solid traffic jams, inept and/or rude taxi drivers, and deteriorating roadways often make the ride between airports and the cities they serve the worst part of business travel. Luckily, a few places have come up with innovative ways to make that trip faster, less expensive, or somewhat more agreeable.

First let's dispense with the cities that have airports situated so close to the business district that using anything but a taxi is a waste of time and energy. Cities where cab fare to downtown hotels still costs little more than a ten-spot include Denver, Little Rock, Omaha, Phoenix, San Diego, San Jose, Washington (National), and even Boston (on those rare occasions when tunnel traffic isn't too heavy).

While taxis and airport buses serve virtually every urban airport, they're not always the most convenient methods of transport; what follows are some more efficient means of catching that flight.

Airports are often so remote and city traffic so congested that helicopters are called in to make the trip. In Boston, HubExpress choppers (800-962-4744) link Logan Airport with either the Boston City Heliport (Fargo and C Streets), near the financial district, or a pad on Nashua Street behind North Station. Standard one-way fare is $59 to $79, but most passengers qualify for free or inexpensive joint fares with their airlines. Helicopter service is also available to the Boston suburbs of Burlington, Boxborough, Waltham, and Norwood.

WHEN GOTHAM'S THE GOAL

Passengers heading to Manhattan from New York City's distant John F. Kennedy International Airport can fly New York Helicopter (800-645-3494) from the TWA international terminal to a heliport at the East River and 34th Street. Regular fare for the ten-minute hop is around $65 one-way, but joint-fare arrangements are also available.

In some instances, waterways flow faster than highways or skyways. At New York's LaGuardia Airport, the Pan Am Shuttle operates the Pan Am Water Shuttle (800-54-FERRY). Buses from the Marine Air Terminal, on the airport's eastern fringe, carry shuttle commuters to a nearby dock, where swift boats transport patrons to piers along the East River at 34th Street and near Wall Street. The fare for the 35- to 45-minute trip—$20 one-way, $38 round-trip—usually undercuts taxi fares to either destination. Courtesy vans connect travelers [illegible] Boston's Logan Airport [illegible] a nearby dock where A[illegible]port Water Shuttle cr[illegible] (800-23-LOGAN) dep[illegible] about every 15 minu[illegible] (every half-hour [illegible] weekends) for Row[illegible] Wharf Dock on the ed[illegible] of the financial distr[illegible] The seven-minute v[illegible]age costs just $7.

Many cities have [illegible]tended their rapid-tra[illegible] systems all the way [illegible] very close) to the airp[illegible] These subways are inv[illegible]ably the least expensive option and, es[illegible]cially when rush-hour traffic clogs the fr[illegible]ways, often the fastest. Subways also re[illegible] neighborhoods beyond the central c[illegible] But be forewarned that subway cars sel[illegible] provide space for storing luggage and [illegible] often jammed with local commuters.

At Atlanta's Hartsfield Airport, howe[illegible] MARTA rapid-transit trains (with ple[illegible] of space to stash luggage and hang [illegible]ment bags) depart from a station be[illegible] South Terminal. The 15-minute ri[illegible] which stops at Five Points, Peacht[illegible] Center, and Civic Center, costs a s[illegible] 85¢. At Chicago's O'Hare Airport, [illegible] trains accessible from baggage claim a[illegible] provide 24-hour service to the Loop; [illegible] 40-minute rides costs $1. In Clevel[illegible] the RTA Airport/Windermere line ma[illegible] the 25-minute trip to Union Termin[illegible] Public Square and costs $1. Philadelph[illegible] Airport Rail Line takes about 20 min[illegible] to reach three city-center stations, inc[illegible]ing the 30th Street Station for Am[illegible] connections; it costs $4.50 ($5.50 on [illegible] train). A shuttle bus that costs betw[illegible] 85¢ and $1.05 connects Washington [illegible]

[illegible]strations by Paulette Bogan

al to the Metro station, but it's so close most passengers just walk over to it.

GOING DOWNTOWN

Cities with mass transit only a short ttle-bus ride away from the airport in- de Boston, where No. 22 and No. 33 es provide free rides to Airport Station he Blue "T" subway line. From there only a 20-minute, 75¢ ride to down- n. The Air-BART Shuttle takes pas- gers from Oakland Airport to the RT Coliseum station for a 15-minute to downtown Oakland and a 30- ute ride to Market Street in San Fran- o; the fare ranges from 80¢ to $1.90. Newark Airport Airlink Bus costs $4 makes 20- to 30-minute runs to Penn ion in downtown Newark. There you h (for $1) PATH subway lines to ei- 33rd Street and Sixth Avenue in mid- n Manhattan or to the World Trade ter in the Wall Street area. (To reach hattan from Newark Airport, the $7 v Jersey Transit bus to the Port Au- ity Bus Terminal on West 42nd Street simpler, yet slightly more expensive, on. It leaves every 15 minutes.)

everal airports in Europe are blessed direct intercity rail service: Amster- , Brussels, Frankfurt, Geneva, and ch all have electric trains in the base- t. The only thing in the United States comes close is a free shuttle bus be- en Baltimore-Washington Internation- irport and the Amtrak BWI Airport station, one and a half miles away.

ut on the streets, the most hopeful, -cutting development in airport trans- is the upsurge of "super shuttles," a rid of taxi and limo services. Super tles provide on-demand, door-to-door ice but, by using minivans to group engers headed to or from the same vicinity, are able to charge the same or less than airport buses to downtown hotels or terminals. Traveling to the airport, patrons call ahead for a pickup. Leaving the airport, super shuttles can be summoned by courtesy phone or hailed outside baggage claim areas. The original Super Shuttle services operate in Dallas (817-329-2000), Los Angeles (213-417-8988), Phoenix (602-244-9000), and San Francisco (415-558-8500). But copycat services are springing up all over the place: in Los Angeles, City Shuttle (213-419-4000); in San Francisco, Good Neighbors Airport Shuttle (415-777-4899); and in Denver, Airporter (303-321-3222).

AT YOUR FINGERTIPS

Several cities have thoughtfully established 24-hour phone services that provide information on all available forms of transportation to or from the airport. These cities include New York (800-AIR-RIDE), Boston (800-23-LOGAN), Denver (800-AIR-2-DEN), Los Angeles (213-646-5252), and Seattle (206-431-4444). All of these services (except Denver's) employ automated systems with taped messages accessed directly by Touch-tone phones; rotary phone users can talk to operators.

The state of California publishes a free guide to airport transportation options at 23 airports around the Golden State. To receive the latest edition of the "California Airport Ground Transportation Directory," contact Caltrans; Division of Aeronautics; Box 942873; Mail Stop 40; Sacramento, CA 94273-0001; 916-322-3090.

For further comprehensive information on making the trip to the airport more efficient and pleasant, acquire the bible of the airport transfers universe, Norman Crampton's *How to Get From the Airport to the City All Around the World* (M. Evans; $4.95). ❐

Mobil Travel Guide

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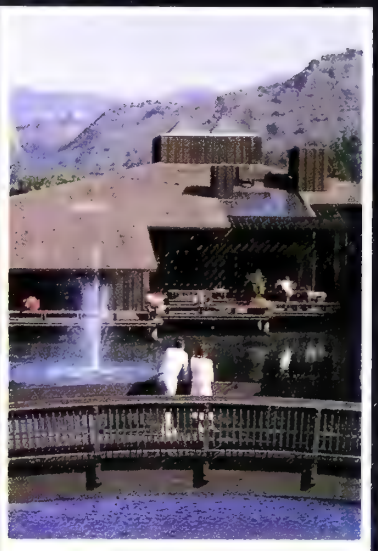

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ALTH BENEFITS

MALL COMPANIES ARE N BIG PAIN OVER HEALTH CARE

ore are dropping it as insurance costs continue to soar

When Douglas M. Farrel set up a small business called Tel-Tech Communications in 1984 install phone systems for companies Fresno, Calif., he and his partner de- ed buying health insurance for a r. Once on their feet, they start- a medical plan but dropped it last r after the monthly premiums t up to some $275 per employee. w, the company doesn't insure of its five workers. "My kids e a small amount of insurance ough their public school," says rel, who is 36, "but my wife and ave nothing."

arrel's insurance dilemma is typi- of a growing trend among small panies. Throughout the 1980s, st companies responded to dou- digit medical inflation by shifting ie of the increased costs onto em- yees. But as insurance premiums tinue to mount, a growing num- of employers—primarily small s—are ditching their health cov- ge. The latest Census Bureau fig- s show that the proportion of un- red workers at companies with er than 25 employees climbed n 23% in 1987 to 24.4% in 1988. he problem is likely to intensify he economy heads downward. In- d, surveys by the National Federa- of Independent Business show that r rising in the early 1980s, the num- of small companies with medical is fell from 65% in 1986 to 63% last r. That means as many as 1 million kers may have lost their coverage.

E BONES. The result is a relentless in the ranks of the uninsured—and ed pressure on Washington to deal runaway medical costs. The num- of people without health insurance from 31 million in 1987 to 33.4 mil- last year, according to Census Bu- numbers. Two-thirds of this group in families headed by workers with -round jobs. And two-thirds of unin- d workers are employed by compa- with fewer than 100 employees. e insurance company raised our pre- ms by 214% recently," says Marga- Willard, who runs an eight-employee welding company in Nova, Ohio, with her husband. "Something has to be done, like nationalized health care."

Needless to say, money is the basic factor prompting small employers to abolish their health plans. It now costs some $2,000 a year to cover an individual worker with the most bare-bones insurance policy. But a host of complicating factors force small businesses to pay 10% to 20% more than the average.

COMPUTER RETAILER WILLS (FOREGROUND) ABOLISHED HIS COMPANY'S MEDICAL PLAN

The biggest problem is the fragmentation of the risk pools that insurance companies use to spread costs among many people. Historically, insurers lumped small and large employers together and charged everyone an average cost. But large companies with many white-collar workers realized in the early 1980s that their employees tend to be healthier than average. They began insuring themselves, which left insurers with pools of less healthy workers. Soon, insurers were charging according to the health profile of individual workers.

SELF-DESTRUCTION. The outcome has been devastating to small employers. Now, when someone at a small company gets a serious illness, the company has to bear the full cost of the increased risk that person represents. Ask Burnell W. Ellis, who runs a small Salt Lake City music business with his wife. He had surgery on his back after an auto accident two years ago and needed a second operation last June. When his insurance policy came up for renewal, the $600-a-month premium for him and his wife was doubled. "We can't afford it," says Ellis. "Now we have no insurance."

As the fragmentation increases, small companies have become so risky that many insurers have pulled out of the market. When insurers raise rates for small groups, those with healthy workers seek cheaper coverage elsewhere. "Then the insurers have to raise rates more, which causes more good companies to leave," says William Lindsay, a Denver insurance consultant who works with small companies. "Eventually, the risk pool self-destructs."

Some small employers run through several insurance companies a year—if they can find anything at all. Take Robert L. Wills. He bought coverage for his four employees when he opened a retail computer store in 1986 in Enterprise, Ala. But when the insurer pulled out of the small-group business in Alabama two years later, Wills felt he couldn't afford any other policy. "I looked for something else, but they wanted $105 a month just for hospital coverage for a 22-year-old female who's paid $5 an hour," he says. "That was with a $500 deductible, no maternity coverage, and no office visits."

Neither Wills nor his employees are likely to get relief from Washington any time soon. National health insurance is a dead issue, and Senator Edward M. Kennedy (D-Mass.), its chief backer, now wants to require all employers to offer minimum coverage through a private insurance plan. His proposal would require insurance companies to fund regional risk pools for small groups. But because the plan is strongly opposed by

THE SMALLER THE FIRM...

Percent of employees with company-sponsored health insurance, by size of firm

Number of employees in company	Percent with insurance
UNDER 25	29%
25-99	56
100-499	66
500-999	70
1,000 OR MORE	72

DATA: EMPLOYEE BENEFIT RESEARCH INSTITUTE

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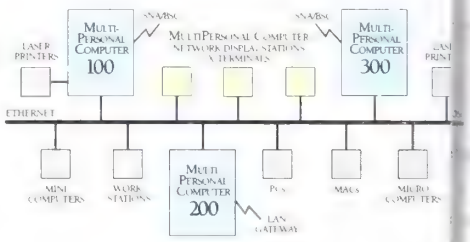

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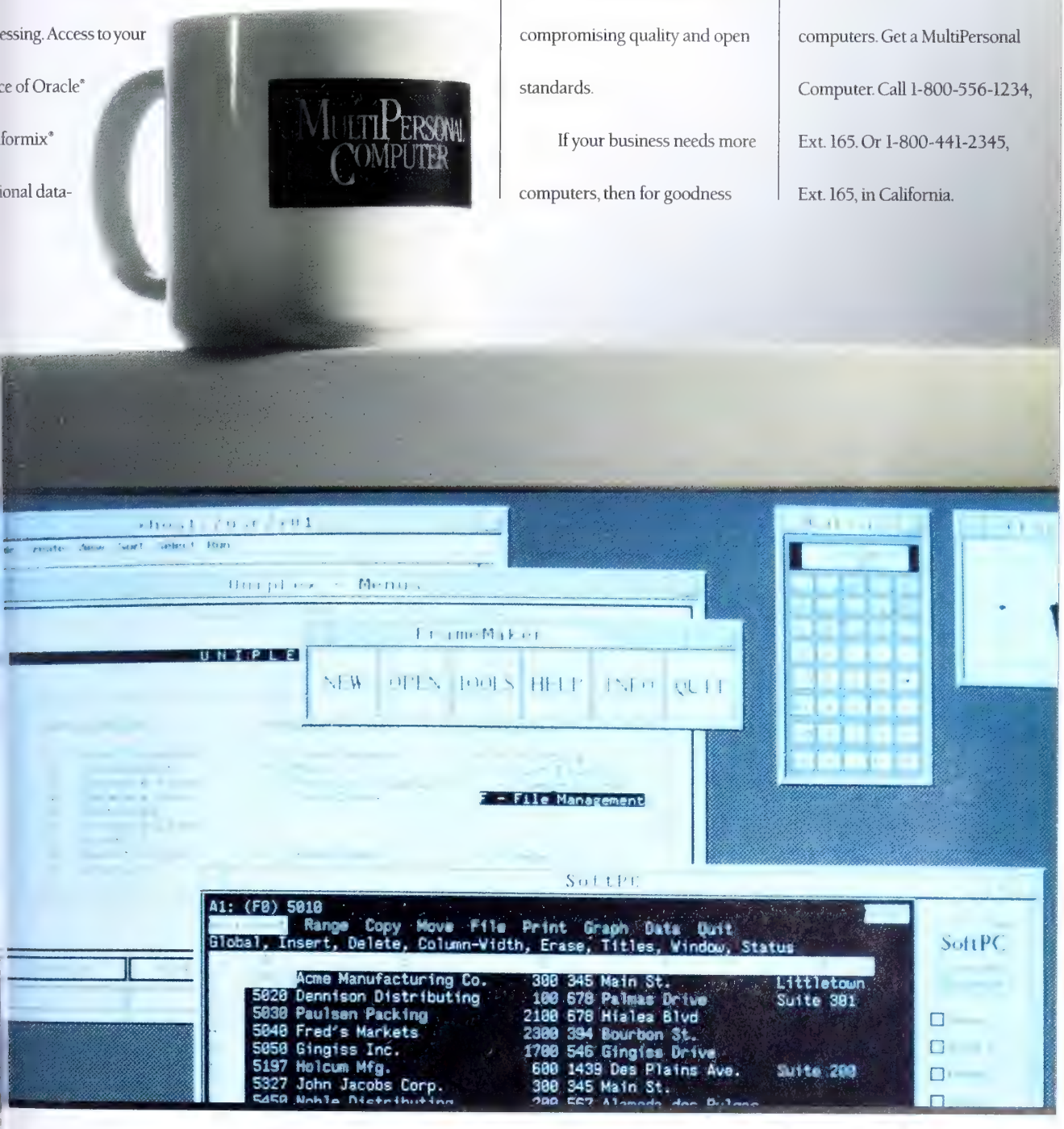

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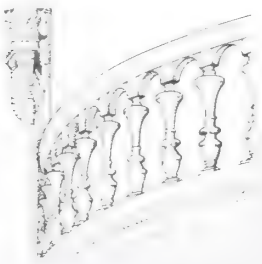

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small companies, Congress is back at th drawing board. Some health backer such as Senator Dave Durenberger (I Minn.) wants legislation to prevent i surers from denying coverage to hig risk companies.

HARD SELL. Some states are forgin ahead on their own. A handful, includin Connecticut, Maine, Florida, and Ne Jersey, have begun experiments to cr ate new insurance pools for small co panies. A Connecticut law now requir state insurance companies to contribu to such a pool. By January, compani with 25 workers or fewer will be able buy insurance regardless of the heal history of their employees.

Insurers are getting into the act, to In California, where 30 carriers stopp selling to small companies in 1988, Bl

'We have to convince low-ris people not to jump at the lowest price today, because their price will only rise late

Cross of California is trying to recrea a small-group risk pool. It will acc any company with as few as three e ployees. But insurance agents m bring Blue Cross four average-risk p ple for every high-risk one they sign Although Blue Cross thinks this prove lucrative, it admits it has a ha sell ahead. "We have to convince l risk people not to jump at the low price today, because their price will o rise later," says Leonard D. Schaeff the company's chairman.

Rising medical costs put both sm and large employers in a quanda Small companies don't like any appro that mandates insurance, since ma have uncovered workers (table, p 187). Instead, some want the gov ment to take over the uninsured. large companies fear more small o would cut coverage, further driving costs for those who still offer insura

Although nationalized health ins ance cuts across these concerns, the i remains anathema to many employ But as the squeeze on small compa grows, resistance to government hel wearing down. In a survey of small c panies released last month, Dun & B street Corp. found that 46% want nat al health care, up from 39% in 1988. V the costs mounting, Congress may back in the act with a modified before long.

By Aaron Bernstein in New York, bureau reports

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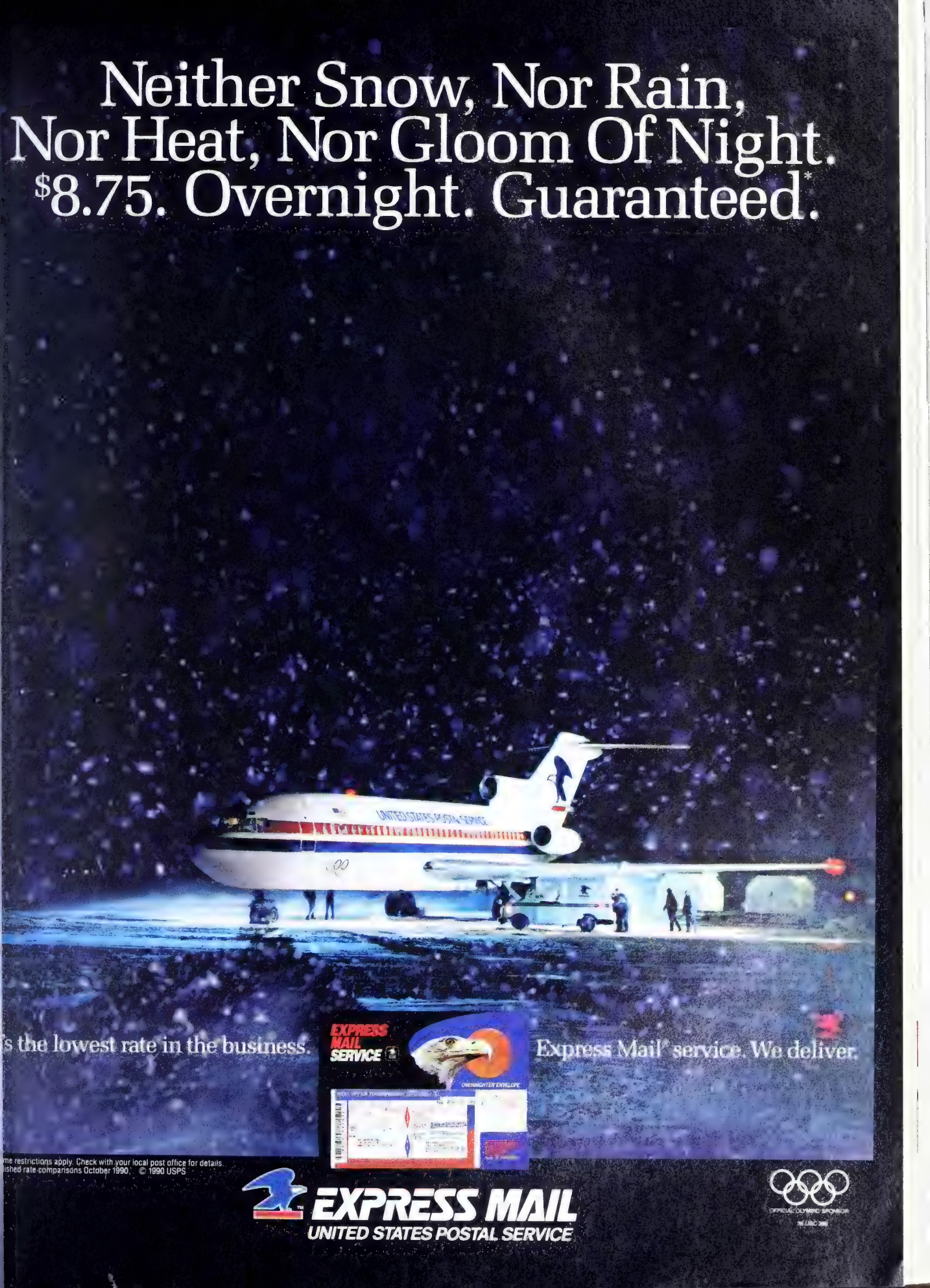

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Computers

FROM PC USER TO SCHMOOZER

I was making my first attempt to dial into a computer bulletin board—the City People board in New York City's Greenwich Village—and it didn't take a degree in computer science to see that something was amiss. My screen was filled with odd symbols, a kind of PC-generated Swahili. I hung up and was ready to toss my monitor out the window when the phone rang.

A total stranger was on the line. "You seem to be having a problem," said City People system operator Barry Weiser. My "sysop" then patiently explained the cause of my woes—and offered a cure.

Such spontaneous acts of user-friendliness are everyday stuff in the world of computer bulletin boards. For anyone who owns a personal computer and a modem, one of the smartest things you can do is sign on with these fast-growing, largely unheralded electronic meeting places, most of which are free or charge only nominal sums—say, $25 for six months. That's far less than the more elaborate commercial on-line services, such as CompuServe, Prodigy, and GEnie.

SELECT CROP. The underlying principle of the bulletin board system—BBS in computerese—is simple. Users from all walks of life post public messages and await a reply—normally one to five days later. (The messages can be directed to one person, but usually they can be seen by all.) BBSs also offer "shareware"—low-cost software for thousands of purposes, from games to word processors to disk-management and other utility programs. Shareware is always cheaper (up to 75% less) and often easier to use than comparable commercially available software.

In the five months since I signed on with City People and other New York-area bulletin boards, I've harvested a small but select crop of shareware and found "BBSing" to be a font of information and entertainment. Since bulletin boards often are tied together in networks—the largest, FidoNet, links 6,000—you can "talk" with people throughout the U. S. and abroad. I've exchanged messages about the fine points of travel in Scotland with a gent from Edinburgh, chatted about root canals with a dentist, and chewed the financial fat with Wall Streeters. A question on computer clocks (mine is slow) drew a half-dozen responses from PC experts.

Indeed, BBS network message bases tend to be far more diverse than the ones at commercial on-line systems. Yet the boards and networks are operated as a hobby by ordinary folks—academics, computer professionals, and even teenagers. Many dedicate their boards to specific computer, occupational, or political interests. Some are as ultraspecialized as The Womb, a New York BBS for people who have been adopted. But the vast bulk are general-interest boards with lighthearted names such as Toxic Dump or The Belfry.

If you want to sign up with a BBS, first try to get a recommendation from a user. Also get a copy of *Computer Shopper* magazine (800 [illegible] 6384), which runs a list of BBSs in every other issue. Once you've dialed into a board, take your time and explore the various message bases and software listings. Most BBSs are fairly easy to navigate, and offer on-line help.

GLOBAL 'NODES.' It's a good idea to try out a few boards before concentrating on one. You may have no choice. Some are so popular that lines tend to be busy. Keep an eye peeled for bulletin boards that belong to one or more of the national BBS networks. FidoNet is the granddaddy of the networks, a modem-linked confederation of BBSs—or "nodes"—throughout the U. S. and in Australia, Europe, Africa, and South America. At FidoNet and other networks such as Ilink, InterRelayNet International Message Exchange (RIME), and Smartnet, among others, incoming messages are organized into specific areas called echoes or conferences.

Conferences are devoted to every imaginable subject. There are computer hardware and software forums, vi-

Low-cost shareware can transform a clumsy neophyte into (almost) a computer whiz. Some shareware is designed specifically for navigating bulletin boards, but hundreds of other programs are handy for anyone who uses a PC. Here's how four shareware programs—offered by most large bulletin boards—have made my life easier:

When I power up my PC, I am faced with a "menu" of my favorite computer programs—courtesy of MagikMenu shareware ($23). All I do is move the cursor to the name of the program and press "enter." The first item on my MagikMenu is a versatile but easy-to-use shareware communications program, Boyan ($40). Among other things, Boyan lets me access my PC from the office. When I want to "download" (transfer) files from my PC or the bulletin boards, Boyan invokes another shareware program, Z-Modem ($20).

The files that I download from BBSs are usually compressed to save disk space. To uncompress them, I use a shareware program called Pkzip ($47). This is a nifty money-saving device for anyone who uses a lot of disks. By "zipping" files, you can cut down on the disks you need by as much as 50%.

The cost of all this shareware, $130, is less than a single commercial communications program—which can easily run $200. G.W.

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SH WORDS. Off-line read-
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at BBS message traffic tends to be freewheeling and often acrimonious. That's a far cry from the commercial services, which are careful to delete insulting messages. Most BBS nets can't, or won't, do that.

Thus, discussions of political and social topics frequently become heated—especially at Fido and RIME, which has about 600 member BBSs. One participant in a FidoNet "Controversy" forum observed that a "weasel" participant had "spouted a lot of twisted quotes from psychotic neo-Nazi revisionists." A RIME newcomer who asked about use of foreign languages in the network was told to "sit down and shut up" by a RIME official.

BULLIES. To steer clear of such nastiness, some sysops carry only technical and noncontroversial conferences. Weiser doesn't carry the RIME Debate Conference, saying that "I don't particularly care to attract a user who is that hostile." Similarly, sysop Ken Pangborn of the Florida-based Fatherboard, which dropped RIME entirely, likens some BBS users to "schoolyard bullies." Says Pangborn: "They pick a fight, throw around insults, and then complain when they get a bloody nose." And a few bullies can wreak havoc. "It doesn't take a lot of people to overwhelm a conference," observes Bart Lidofsky, who hosts several RIME conferences.

One oasis of civility in the BBS maelstrom is the 150-board Ilink network—recently renamed from Interlink. Unlike most BBS networks, Ilink carefully evaluates each board before permitting membership. "We are very selective—some say overly selective," says Ilink's international host Andy Keeves. Choosiness keeps Ilink small but upholds the decorum of its message bases.

Whatever network and board you settle on, be sure to follow elementary rules of BBS etiquette. Some of the most crucial concern shareware. It's gauche to sign on to a board just to get software and never use the message base. Most sysops ask that you return the favor by transmitting to the board shareware that it doesn't have. And above all, remember that shareware is usually not free of charge. You're on your honor to send in a payment, usually from $20 to $50, to the author. There is no such thing as a free lunch—even though it may sometimes seem that way in BBS land. *Gary Weiss*

A HEAD-CLEANING DISK WITH A DIFFERENCE

Using a PC's floppy disk drive can be risky. A floppy's read/write heads, which magnetically plant and harvest data on diskettes, inevitably accumulate grungy deposits—airborne dust, minute flakes from the diskette's surface, and even dandruff. If the tiniest speck gets loose and dragged between the head and diskette, you can kiss some data good-bye. The microdebris will plow a little furrow in the diskette, destroying whatever was there.

What's a PC-user to do? Well, most computer stores carry head-cleaning disks. These look like ordinary floppies, but inside is a disk of stiff, absorbent paper. You douse the paper with pure alcohol, insert it in the PC, and it scrubs the surfaces of the read/write heads.

But the surest way to spark an argument is to ask a group of techno-pundits how often you should use such a head cleaner. Answers will range from "once a week" to "never—unless you're getting read errors." The latter camp argues that these stiff paper disks can abrade the heads; repeated use will eventually cause chronic read/write problems.

But that dispute doesn't apply to a new type of head cleaner from Trackmate America in Los Gatos, Calif. Instead of paper, it uses soft brushes—actually, nonlinting woven-pile pads. An independent testing lab ran Trackmate's product for 2,500 hours. A subsequent microscope inspection of the heads revealed no signs of abrasion. Moreover, Trackmate's pile brushes are deep enough to sweep up the microtrash hanging on the edges of the heads. Paper-disk cleaners hardly touch these deposits.

GOOD ADVICE. Trackmate head-cleaning kits, available for both 5¼-inch and 3½-inch floppy drives, include a diagnostic disk that measures rotational speed and read/write accuracy. The disk then can advise if a routine or a thorough cleaning job is needed; weekly cleanings are recommended. Each kit is good for at least 52 uses.

At $35, Trackmate's kits can be double the cost of regular kits. But given that they're safe enough to use every week, Trackmate is a data-insurance bargain. *Otis Port*

Outdoors

THE BLARNEY STONE, LITTLE PEOPLE, AND FUNGIE

It's not as if Dingle, on Ireland's southwestern coast, had little to recommend it before Fungie came along. Tourists have long flocked to this Gaelic-speaking region for its lovely amalgam of mountain and shore scenery. But when a large, gray, bottle-nosed dolphin—dubbed Fungie by the locals—showed up in the harbor six years ago and decided to stay, it gave Dingle an extra reason to be proud.

At 12 feet and 700 pounds, Fungie lords it over the harbor, far from the society of other dolphins. That suits him fine—he seems to prefer the company of people. Dolphin experts say this is rare but not unheard-of. Single wild dolphins have been known to befriend humans off the coasts of England and Australia, and at Club Med's Turks and Caicos resort.

Fungie's daily acrobatics, not to mention his charm, attract animal lovers from near and far, although neither my husband nor I knew he existed when we pulled into Dingle one sunny afternoon to check out the views. We heard about him from Siobhan McDonald, a friendly young farmer's wife who once worked as a maid for the Kennedy family in Hyannisport, Mass. She now runs a bed-and-breakfast on the Lough dairy farm overlooking the sea. One of the best places to watch Fungie is at the foot of Lough's pastures.

THE 700-POUND FUNGIE PERFORMS ACROBATICS IN DINGLE HARBOR, IRELAND

Small wonder that the townspeople want to spread the word about Fungie: E[n]trepreneurial boat owne[rs] charge tourists 5 punts (abo[ut] $8.50) to ride their tubby v[es]sels in search of him. Fo[r a] few dollars more, you [can] hire a small motorboat a[nd] look for him yourself. (We d[id] both and found that Fun[gie] prefers the smaller boats.)

CAMERA SHY. An outfit call[ed] Seventh Wave (066-514[-]) even rents wet suits [so] you can jump in the b[ay] water with him. The b[est] time is in the early e[ve]ning, when Fungie pl[ays] with a group of swimm[ers] who regularly congreg[ate] during the warmer mon[ths] at a little beach near [the] mouth of the harbor.

One frustrating th[ing] about Fungie is that [it's] hard to take his pict[ure]. By the time you figure [out] where he's going to ju[mp] next, you're lucky to g[et a] shot of the point of his [fin]. Still, it isn't often you [can] see a friendly creat[ure] such as Fungie in the w[ild]. And if he won't pose fo[r a] snapshot, Dingle sells pl[enty] of postcards. *Amy Dun[n]*

Smart Money

SOFT-DRINK STOCKS WITH POP

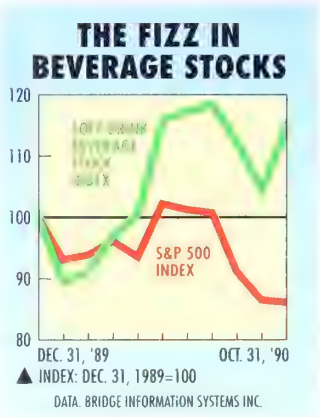
If you thirst for investments that won't go flat, beverage stocks may suit your taste. Shares of soft-drink makers have outperformed the market in each of the last four recessions, and this year is proving no exception: They are up about 13% year-to-date, against a 13% decline in the Standard & Poor's 500-stock index.

Consumer demand for beverages remains strong, whatever the economic environment. In the soft-drink industry in particular, several other trends bode well right now. Consumption of diet products continues to grow, prices have risen after a long period of discounting, and ingredient costs should plunge when NutraSweet's aspertame sweetener loses its patent protection in 1992.

But the real golden egg for these companies is international expansion. Nearly three-quarters of Coca-Cola's operating profits come from foreign markets, where unit volume is rising three times as fast as in the U. S. PepsiCo's international soft-drink business, while much smaller than Coke's, is also thriving.

TOP PROSPECT. Coke does have a drawback: its price. Currently at 45, the stock is selling at about 23 times estimated 1990 earnings, a large premium over the S&P 500's multiple of 14. Still, many analysts believe the stock deserves to be expensive given the company's excellent financial prospects. "Coke is the sort of stock you put away, and, lo and behold, you send your kids to college with it," says David Braverman, S&P beverage analyst.

At 25 and a price-earnings multiple of 18, PepsiCo may seem better priced than Coke. But it's less of a pure beverage play: Two-thirds of Pepsi's operating profits come from snack foods and restaurants. Some analysts feel its restaurant division, made up of Pizza Hut, Kentucky Fried Chicken, and Taco Bell, could be squeezed in a recession. "We're already seeing a slowdown" [in] sales by stores open m[ore] than a year, "and we co[uld] see a weakening of m[ar]gins," says James Murren [of] C. J. Lawrence, Morg[an] Grenfell, which downgra[ded] Pepsi from a buy to a h[old]. Nevertheless, he says Pe[psi] has done an outstanding [job] in its three businesses.



If soft-drink shares seem [a] safe enough bet, your portf[o]lio might also get a k[ick] from the harder stuff. W[hi]ries that new excise tax[es] will crimp sales have creat[ed] potential bargains among [al]coholic-beverage stocks.

The current favor[ite] Brewing-industry leader [is] heuser-Busch, selling at [16] times estimated earnin[gs]. With strong global sales [of] its spirits and juices, [its] gram is also enticing at [a] multiple near 10. Whe[ther] you prefer soft or hard, [bev]erage stocks offer a relat[ive]ly safe way to play tod[ay's] shaky market. *J.D.*

The Problem With Buying Software From A Hardware Company

Once a company gets locked into hardware and software from one computer vendor, it operates at the mercy of that vendor.

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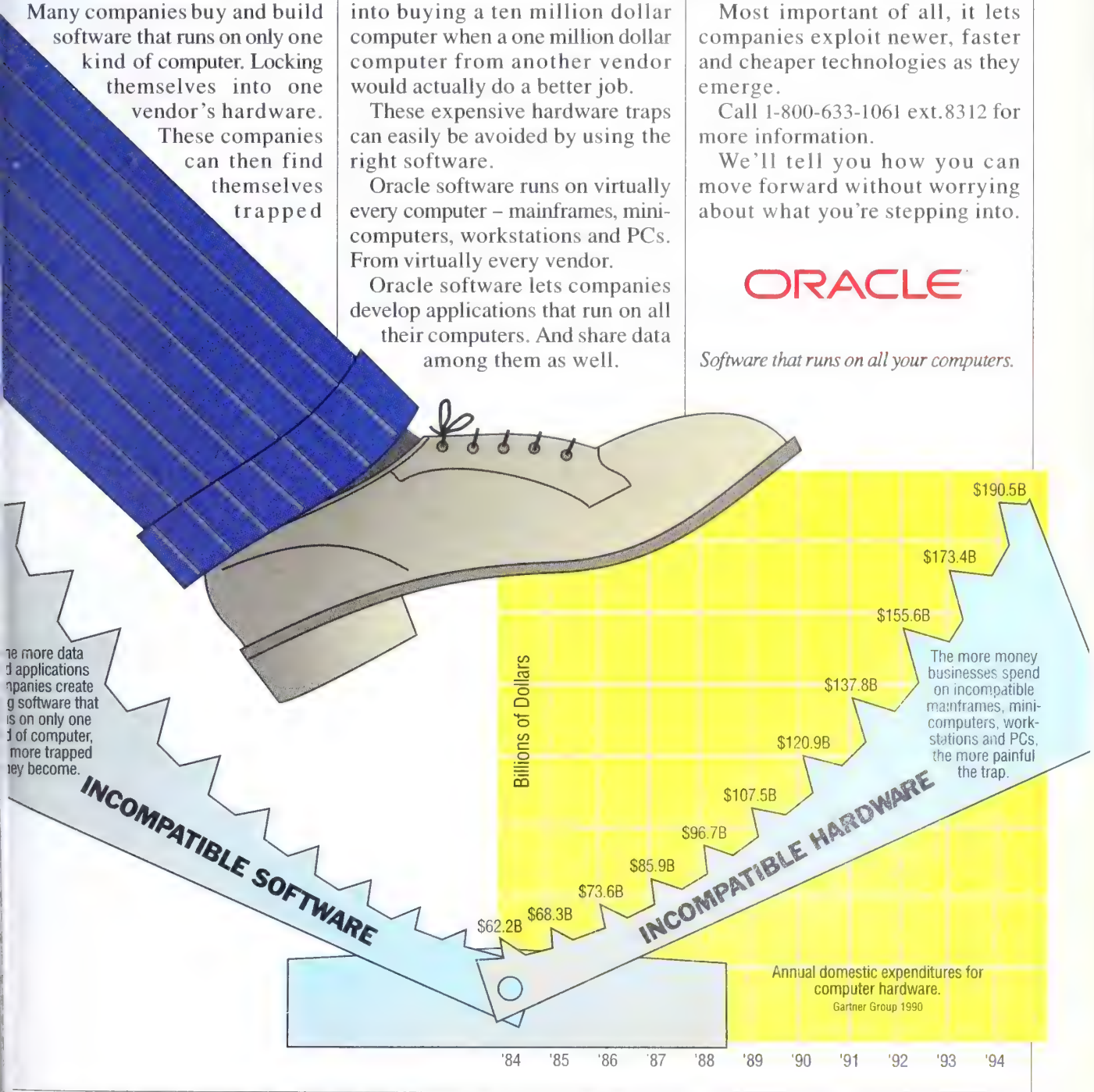

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Fitness

GO CLIMB A ROCK —AT THE GYM

Twice weekly, Seattle physician Robert "Brownie" Schoene starts climbing the walls. Literally. It happens when the good doctor heads for a local gym. But his club has no Olympic-size pool or hip-shaking aerobic workouts, just five pockmarked walls, some 18-feet high. Facing one of the slabs, Schoene slips on a pair of rock shoes, dips his hands into a chalk bag tied snugly around his waist—and hits the wall.

Enthusiasts such as Schoene are fueling a boom in "climbing gyms" that promise the thrill of outdoor climbing with the convenience of a lunch-hour workout. Popularized in France in the mid-1980s, indoor climbing showed up in the Pacific Northwest three years ago, when club owners built artificial cliffs for "rock jocks" who wanted to stay fit when it was too wet to climb outside.

ROVING ROUTES. Seattle's Vertical Club (where Schoene goes) is a pioneer climbing-only establishment, founded in 1987. Now, there are more than 120 indoor walls across the nation, at gyms from Seattle to Somerville, Mass. As climbing has become more popular, the walls have begun moving out of warehouse gyms into upscale, all-around health clubs. In September, the Sporting Club at Illinois Center in Chicago opened the largest wall in the U. S.—a seven-story monolith in the heart of downtown that has changeable routes so climbers don't get bored with just one. Constructed by premier wall builder Entre Prises USA, the wall is made of fiberglass, with sand and resin bonded on top for that authentic, rock-like feel.

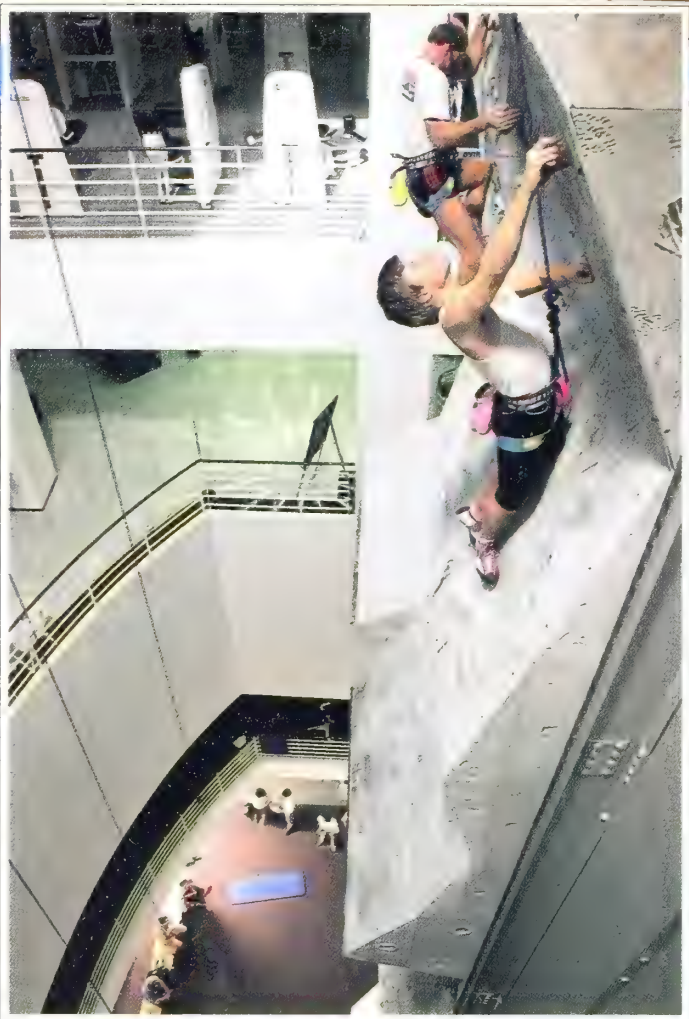
Climbing is a gymnastic workout that requires both physical skill and intense concentration. Wearing harnesses attached to anchored ropes, climbers inch their bodies up the wall by stepping on pieces of rock as small as two inches wide. "It's scary at first," admits Bill Joy, co-founder of Sun Microsystems. He started climbing after seeing a tape of a wall-climbing championship in Snowbird, Utah. "It forces you to pay attention."

STICKY SHOES. Most clubs provide equipment and instruction for novices. Harnesses, ropes, and sticky-bottom rubber rock shoes are essential; some stylish athletes sport neon chalk bags and shiny spandex leggings. Before starting, they warm up with weights or on pull-up bars, and do hand- and finger-stretching exercises.

At the Vertical Club, co-owner Dan Cauthorn says more injuries result from climbers' fatigued muscles or not climbing properly than from falls. Even so, the wo injury the Vertical Club ever seen has been a sprai ankle. Most health clubs quire climbers to waive th rights to sue in case of inju

Rock gyms charge aro $10 a visit for nonmemb Memberships cost betw $200 and $300 a year; less are usually extra, betwe $20 and $65 each. At full-s vice health clubs such as Sporting Club or the Vail A letic Club in Colorado, the usually no additional since the wall is just one r facility.

Climbing has plenty healthful benefits: It to muscles, increases upper-b strength, and improves f bility. But most indoor m taineers say the real thr melding body and mind reach the top. Except w he's "thrashing and cl ing," Schoene thinks of cl ing as "vertical ballet." A very least, it has made s climbing more than a p goer's sport. *Laura H*



AT CHICAGO'S SPORTING CLUB: A WORKOUT FOR BODY AND MIND

PLACES TO BE UP AGAINST THE WALL

CALIFORNIA CityRock, 1250 45th St., Emeryville 94608 *415 654-2510*

COLORADO Vail Athletic Club, 352 E. Meadow Dr., Vail 81657 *303 476-0700*

ILLINOIS The Sporting Club, 211 N. Stetson Ave., Chicago 60601 *312 616-9000*

MASSACHUSETTS Boston Rock Gym, 149 Highland Ave., Somerville 02143 *617 776-8703*

NEW HAMPSHIRE Mount Cranmore Recreation Center, Mount Cranmore, North Conway 03860 *603 356-6301*

NEW MEXICO Albuquerque Rock Gym, 3300 Princeton NE, Suite S-30, Albuquerque 87107 *505 881-3073*

OREGON The Rock Gym, 2034 SE Sixth Ave., Portland 97214 *503 232-8310*

WASHINGTON Vertical Club, 1111 Elliot Ave. W. #5, Seattle 98119 *206 283-8056*

Worth Noting

■ **TRAVEL LIGHT.** Business travelers tired of lugging laptops can rent them, complete with software and modem, from LapStop at Avis airport counters (800 828-8580) for $45 a day. They're at Newark, Boston's Logan, Chicago's O'Hare, and Washington's National and Dulles; 15 more locations are planned.

■ **SKIMATIC.** This winter, Montana's Big Sky and Quebec's Mont-Sainte-Anne ski areas boast magnetic-stripe tickets. They're programmable for any length visit and can be purchased in advance.

■ **DESIGNER DONATIONS.** To benefit the New York City AIDS Fund, 100 hot fashion designers are selling their creations at discount prices—some even below wholesale. Running Nov. 30 to Dec. 2, Seventh on Sale will be at Manhattan's 26th Street Armory. Call 212 947-5850 for $10 tickets.

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Since the turn of the century, NEC and the Davis Cup™ have helped keep the world's lines of communication open. And today, NEC computer and communications products still bring people from different countries and cultures together. As does our sponsorship of distinguished international sports events like the Davis Cup.

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This is what it feels like to have asthma.

Try breathing through a thin straw. With an asthma attack it's a fight for every breath you draw.

Asthma is a serious lung disease that can affect children and adults at any time. An attack can be triggered by such diverse causes as cold air, pets, tobacco smoke, dust, and stress. The American Lung Association® is helping people control asthma so they can lead happy, normal, active lives.

It's a matter of life and breath®

AMERICAN LUNG ASSOCIATION®
The Christmas Seal People®

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HE COMES FROM A BROKEN HOME.

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Every day 140,000 acres of tropical forest are axed, burned, or clear cut. The result: this margay – and thousands of other species that call these forests home – are teetering on the brink of extinction.

Tropical forests help regulate the Earth's climate. And they shelter ⅔ of all Earth's species – unique life forms that give us priceless medical, industrial, and agricultural benefits.

The Nature Conservancy works creatively with partners throughout Latin America to safeguard tropical habitats. But we need your help, so join us. Write The Nature Conservancy, Latin America Program, Box CD0031, 1815 N. Lynn Street, Arlington, VA 22209. Or call 1-800-628-6860.

It's a question of proper housekeeping in the only home we've got.

The Nature Conservancy

Conservation Through Private Action

Lots of people are working to get kids off the street.

Every year, over 5,000 American children are buried in unmarked graves. And a lot of people work very hard to put them there. Drug dealers with dirty needles. Pimps who rule with a fist. Child molesters in expensive cars. Fortunately, Larkin Street is working to get kids off the street, too. With food, clothing, medical care, professional counseling—and lots of hope.

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So make it your goal to give five. And help keep society well-nourished.

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What you get back is immeasurable.

108D-CA

ndex to Companies

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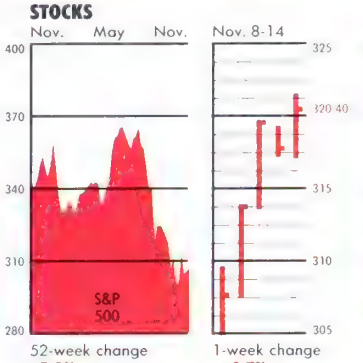
vestment Figures of the Week

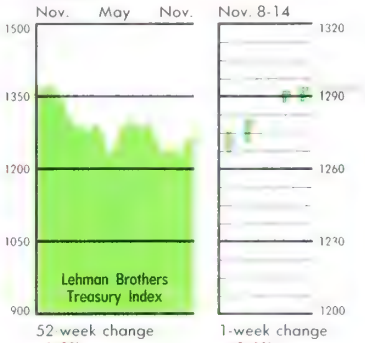
ENTARY

t-rate relief comes at last. nd market, reacting to a sful U. S. Treasury refund- lling oil prices, and mount- dence of recession, rallied usto. The 30-year govern- ond sliced 0.2 percentage off the yield. Recessions t good for stocks, but lower t rates are. So the equity s jumped into the rally, too. w industrials ran up 119 or 4.9%. Battered small- ny stocks showed some life, mbing 3.6% for the week.

STOCKS



BONDS



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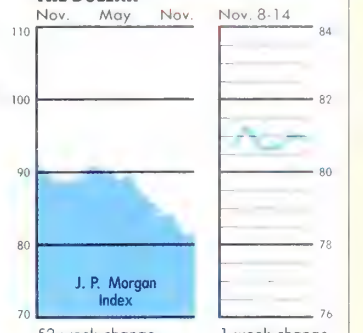


ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
IONES INDUSTRIALS	2559.7	4.9	–2.8
OMPANIES (Russell 1000)	165.7	4.9	–7.7
COMPANIES (Russell 2000)	124.7	3.6	–25.6
OMPANIES (Russell 3000)	174.8	4.8	–8.8

GN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
N (FINANCIAL TIMES 100)	2046.0	–0.6	–7.1
(NIKKEI INDEX)	23,937.4	1.9	–33.2
TO (TSE COMPOSITE)	3127.6	1.8	–21.2

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.3%	7.3%	7.9%
30-YEAR TREASURY BOND YIELD	8.5%	8.7%	7.9%
S&P 500 DIVIDEND YIELD	3.7%	3.8%	3.3%
S&P 500 PRICE/EARNINGS RATIO	14.7	14.1	14.1

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	334.9	336.3	Negative
Stocks above 26-week moving average	17.7%	15.5%	Positive
Speculative sentiment: Put/call ratio	0.45	0.55	Positive
Insider sentiment: Vickers sell/buy ratio	0.45	0.50	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
NEERING AND CONSTRUCTION	26.3	37.2	FLUOR	30.5	27.3	38½
TH CARE SERVICES	18.3	56.4	BEVERLY ENTERPRISES	24.0	29.2	7¾
NSE ELECTRONICS	18.3	3.2	HONEYWELL	24.3	10.1	89⅝
IRE TIME	16.8	–51.4	BRUNSWICK	22.2	–39.4	8¼
	16.3	–24.8	HASBRO	18.8	–36.0	14¼

WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
HINE TOOLS	–15.0	–41.8	CINCINNATI MILACRON	–18.9	–40.8	9⅝
SPORTATION SERVICES	–6.7	–32.7	FEDERAL EXPRESS	–9.8	–28.9	34½
L AND GLASS CONTAINERS	–4.5	1.9	CROWN CORK & SEAL	–4.6	7.4	54¼
	–3.8	–4.4	WESTMORELAND COAL	–26.2	–17.4	19
INUM	–3.6	–17.6	REYNOLDS METALS	–5.7	–1.0	50

TUAL FUNDS

MORNINGSTAR INC.

RS

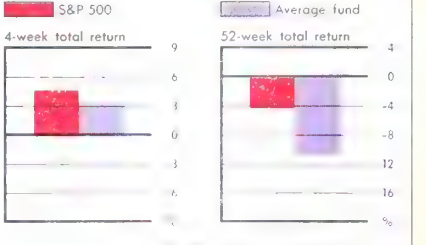
k total return	%
ITY SELECT COMPUTERS	21.2
ITY SELECT TECHNOLOGY	18.7
ITY SELECT SOFTWARE & COMPUTER	13.0

k total return	%
ITY SELECT ENERGY SERVICE	33.2
TY STRATEGIES	32.1
ITY SELECT BIOTECHNOLOGY	29.8

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–11.7
STRATEGIC GOLD/MINERALS	–9.1
PIONEER GOLD SHARES	–8.1

52-week total return	%
PRUDENT SPECULATOR LEVERAGED	–48.0
SHERMAN DEAN	–45.2
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–44.9



ATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
nt the present
f $10,000
d one year
each portfolio

ges indicate
total returns

Money market fund	Treasury bonds	Gold	U. S. stocks	Foreign stocks
$10,688	$10,144	$9,952	$9,404	$8,789
+0.14%	+1.13%	+1.12%	+1.94%	–0.68%

n this page are as of market close Wednesday, Nov. 14, 1990, unless otherwise indicated. roups include S&P 500 companies only; performance and share prices are as of market close Nov. 13. Mutual fund returns are as of Nov. 9. Relative portfolios are valued as of Nov. 13. A more detailed explanation of this page is available on request.

RETHINK COMPUTERS—AS PRODUCTIVITY TOOLS

On paper, it's a huge leap in the power and flexibility of business computers. Big strides have been made in recent years to paint a friendlier face on the front of personal computers, using graphics and other techniques. Now the other side of the machine, where computer meets computer, is getting friendlier, too. The result is network computing, where computers work as teams, tackling problems that used to run only on big mainframes (page 116).

The critical question, however, is whether the promise of the latest technology will be realized. No one can deny American business' devotion to computer technology. Information technology is now the largest line item in Corporate America's capital spending budget, accounting for nearly a third of current-dollar equipment outlays. But thus far the payoff in terms of productivity has been disappointing.

Economists calculate that about 85% of investment in information technology is made by the service sector. Yet nonmanufacturing productivity has risen cumulatively just 1.9% over the past 10 years, while factory productivity has increased about 44%—a disparity that can hardly be explained away by measurement problems. "Unfortunately," observes Morgan Stanley economist Stephen Roach, "the service sector has devoted far more effort to deploying computers than in determining the precise ways they can be used to enhance white-collar productivity."

As American business rushes to invest in new networking technology, that must change. Companies need to develop better ways of measuring office productivity and the contributions that managers and other white-collar workers make to the bottom line. And they need to link the acquisition of technology to a real commitment to reducing labor costs and raising productivity. The U. S. may claim to be the most computer-intensive economy in the world, but that will remain a hollow boast as long as its productivity growth lags.

MINOR SURGERY WON'T HELP HEALTH CARE

More and more, the problem of escalating health insurance costs looms as an incurable cancer that threatens American business profitability. In recent years, U. S. employers have been intensifying their efforts to control health care expenditures—by passing more of the burden on to their employees and by adopting such managed-care options as preferred-provider plans. Yet health insurance costs keep surging higher—by more than 20% last year, according to one survey.

Now, a number of small businesses are taking the ultimate step to solve the problem. They are simply jettisoning their health insurance plans, leaving their employees to fend for themselves (page 187). By one estimate, as many as 1 million employees of small firms may have lost employer-sponsored coverage in recent years. The plight of sm business is particularly acute because many large compar have found they can save money by self-insuring their e ployees. When this happens, many young and healthy wo ers are withdrawn from the risk pools that insurance com nies use to set premiums. As a result, insurers have rai the cost of insurance to the point where many smaller ployers can no longer afford it.

The solution is not obvious. Several states are trying create new insurance pools for small companies, but the v of incoming governor William Weld to dismantle suc small-business insurance plan in Massachusetts sugge that success may prove elusive. At the same time, the n ber of Americans lacking health insurance coverage—n estimated at more than 33 million—continues to grow.

Many small employers are now clamoring for grea federal action to control health care costs. Meanwhil coalition of unions, consumer groups, and major corp tions such as Chrysler and Du Pont is trying to devis broad program to deal with the health care crisis. The ra ization inspiring such cries and efforts appears inescapa The problem of escalating medical costs is a national pr lem that is unlikely to be solved in a piecemeal fashion

PUTTING MINORITIES ON THE POLITICAL MAP

The Democrats are shocked. Some civil rights gro without so much as a by-your-leave, are accep technical aid from the Republican National Comm (page 80). The RNC is helping groups representing black Hispanic voters to maximize their clout when state leg tures draw new congressional and legislative districts.

The GOP's interest in this is, of course, hardly altru Taking advantage of 1982 amendments to the Voting Ri Act and subsequent Supreme Court decisions, the GOP press for creation of the maximum number of black Hispanic districts. The goal is to strip away minority vo who normally vote Democratic, from the districts of D crats that straddle white and minority areas, thereby hancing the chances of those seats going Republican.

The Democrats shouldn't be surprised. For years, party has been ignoring the demands of minorities for g er representation while carving up their districts to m mize Democratic political clout. Blacks make up only 6 the newly elected House, barely half of their share o U. S. population.

Regardless of their motives, we think there is real, as as poetic, justice in the Republicans' redistricting stra And we hope that Democrats will come to agree. One o problems besetting the political system is endemic and g ing voter apathy. Only 36% of voters bothered to cast ba in the latest congressional election, and only half of vo age Americans took part in the last Presidential elec The problem is widespread but particularly notable a black Americans. If providing minorities with the chan achieve greater representation galvanizes their particip in the electoral process, the nation as a whole will be

JESS WEEK
December 3

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BusinessWeek

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REBEL WITH A CAUSE

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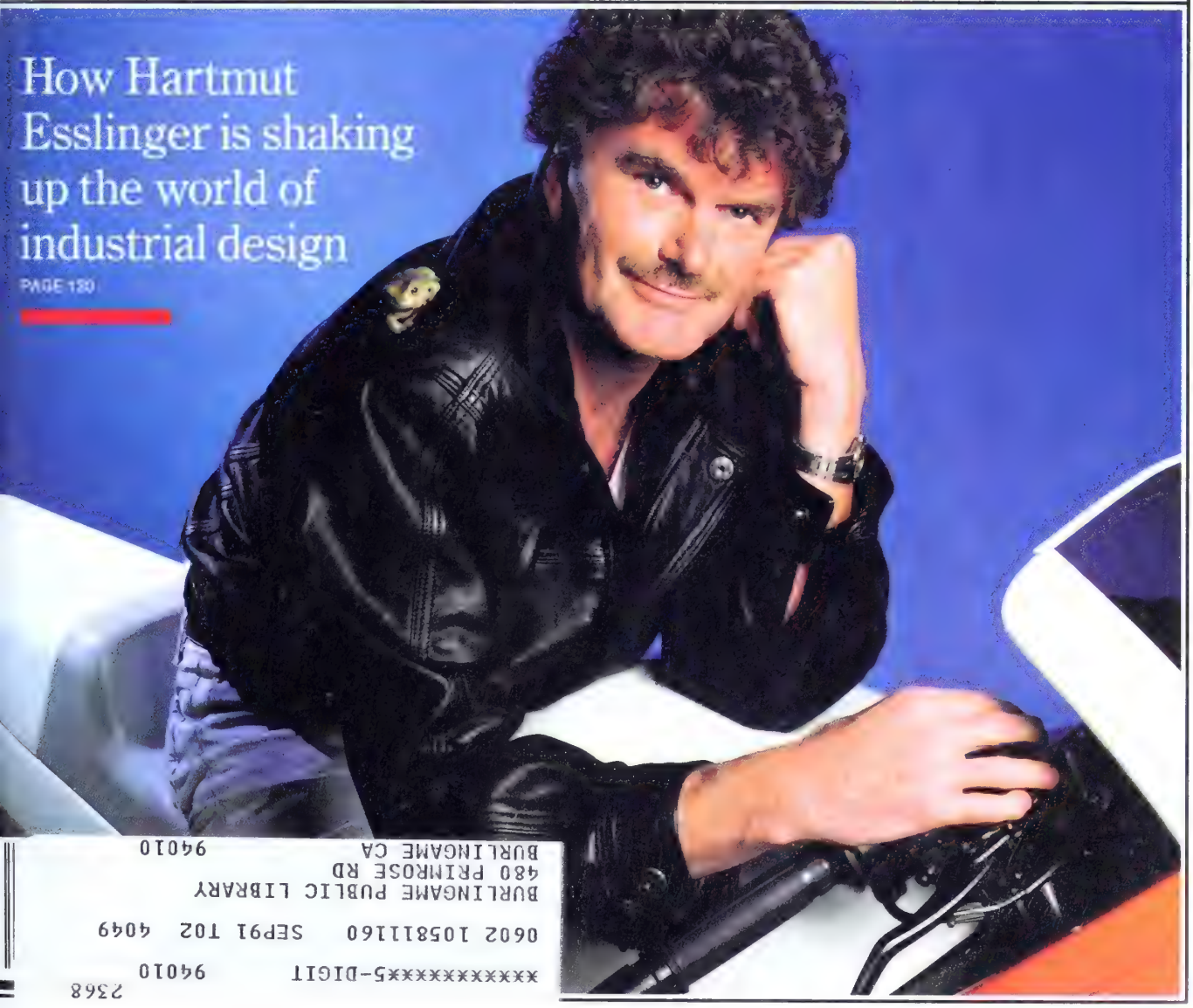
How Hartmut Esslinger is shaking up the world of industrial design

PAGE 120



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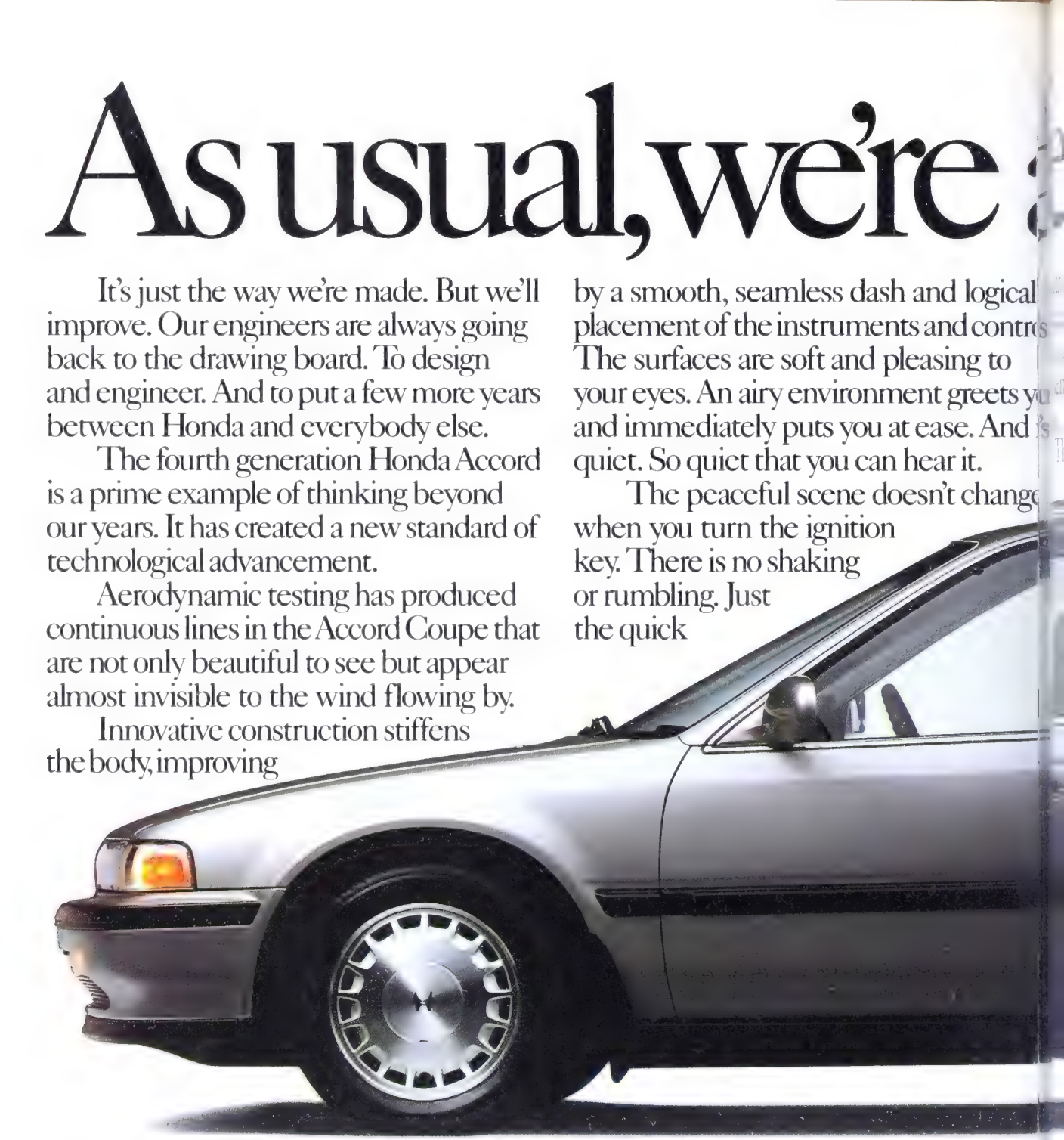
As usual, we're

It's just the way we're made. But we'll improve. Our engineers are always going back to the drawing board. To design and engineer. And to put a few more years between Honda and everybody else.

The fourth generation Honda Accord is a prime example of thinking beyond our years. It has created a new standard of technological advancement.

Aerodynamic testing has produced continuous lines in the Accord Coupe that are not only beautiful to see but appear almost invisible to the wind flowing by.

Innovative construction stiffens the body, improving



and quieting the ride. It makes the Accord strong and rigid. The car feels more like it was carved from a block of steel rather than welded together.

This solid chassis provides a stable platform for the four-wheel independent double wishbone suspension. One more reason for the Coupe's impressive handling.

Inside the car, you will be impressed by a smooth, seamless dash and logical placement of the instruments and contro The surfaces are soft and pleasing to your eyes. An airy environment greets y and immediately puts you at ease. And quiet. So quiet that you can hear it.

The peaceful scene doesn't change when you turn the ignition key. There is no shaking or rumbling. Just the quick jump of the engine tachometer needle t tell you that everything is ready, able an waiting under the hood.

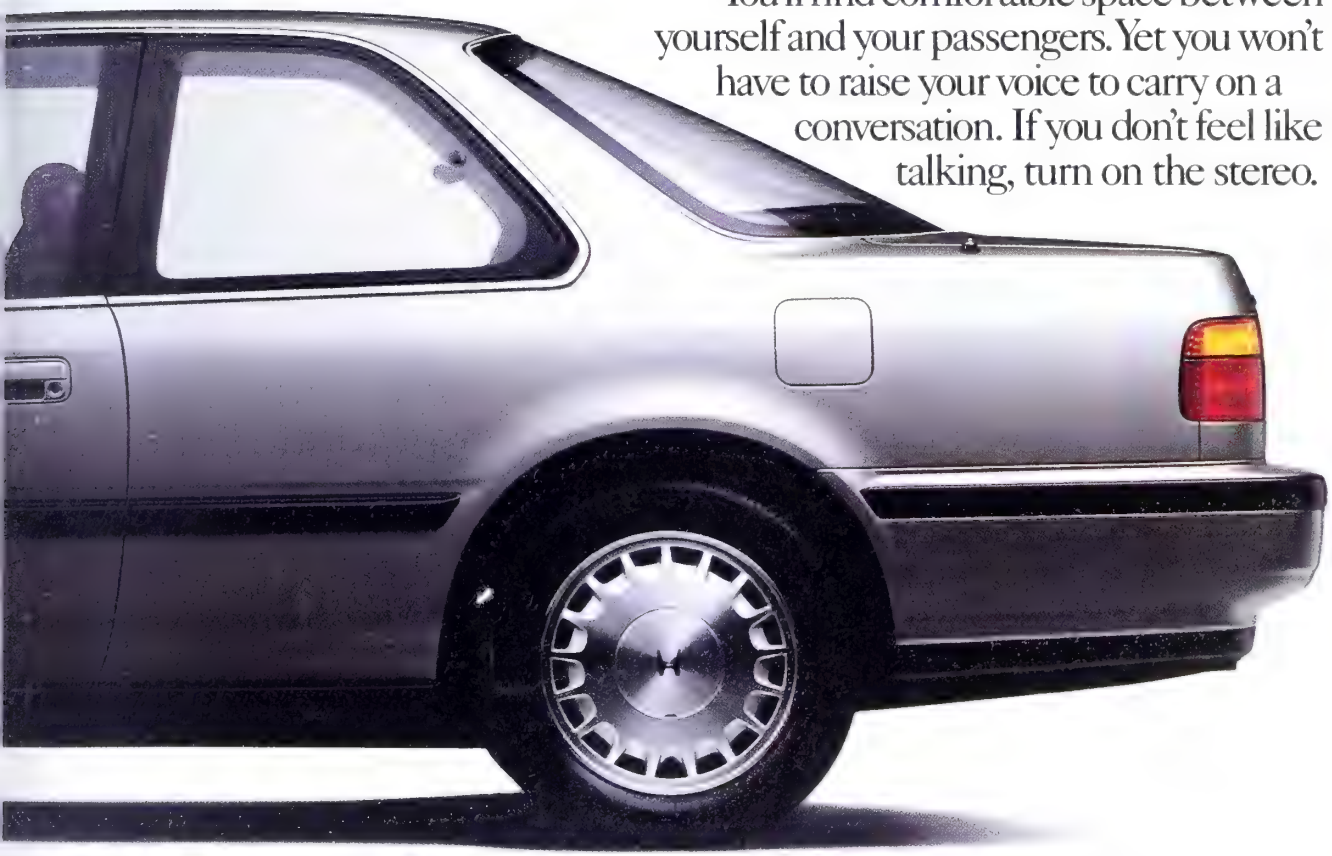
What is under the low, sloping hood is a powerful fuel-injected engine. It h been finessed to deliver horsepower an torque in the driving ranges that you mo often use. Imaginative Honda technolog makes the engine run smoothly and

© 1990 American Honda Motor Co., Inc. EX model shown.

ew years early.

ietly. Twin balance shafts cancel out the ertial forces that cause other engines to ake and bounce. Additional engineering inements further reduce vibration and ise. And overall harshness.

The five-speed transmission comes



ndard or you can choose a four-speed tomatic with a driver selectable Sport ode and lockup torque converter.

Along with being quiet and smooth, e Coupe is comfortable. The front seats e large, with firm support. Rear seats ntour to the shape of the interior. The ar seat cushion is formed from one piece molded foam.

Carpets are plush and help to reduce outside noise that much more.

The headliner is built to absorb noise and is recessed for the windshield visors. Everything folds nice and flush for a more fitted appearance.

You'll find comfortable space between yourself and your passengers. Yet you won't have to raise your voice to carry on a conversation. If you don't feel like talking, turn on the stereo.

All the technology behind the Accord Coupe has but one purpose. To make you pleasantly aware of the joy of driving.

We may have arrived earlier than the others. Still, we can't wait for them.

HONDA

Accord Coupe

NUMBER 3190

BusinessWeek

DECEMBER 3, 1990

FROGDESIGN'S ESSLINGER LIKES HIS BAD-BOY IMAGE: "THERE'S ONLY ONE THING I'M SUFFERING FROM. I DON'T HAVE ENOUGH GOOD OPPONENTS"

Cover Story

130 REBEL WITH A CAUSE
Hartmut Esslinger's frogdesign is making its mark on American industry. His sensibilities have shaped products from Apple, Sony, GE, and 3M—just to name a few. Esslinger, who trumpets design excellence as loudly as he blows his own horn, is putting U. S. design back on the map. His credo: 'Form follows emotion'

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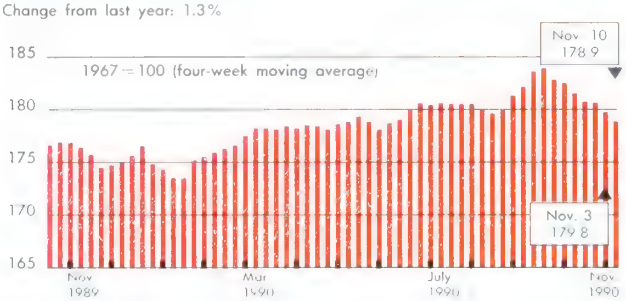
BusinessWeek Index

PRODUCTION

Change from last week: –0.5%
Change from last year: 1.3%

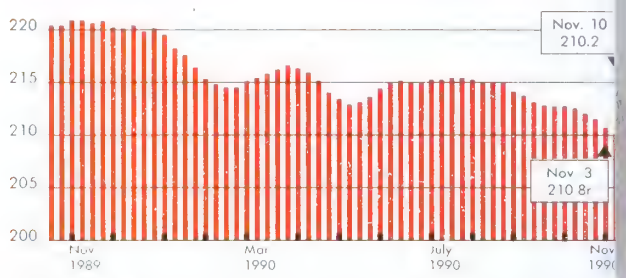


The production index dropped during the week ended Nov. 10. On a seasonally adjusted basis, truck output was down sharply, and auto, paper, rail-freight traffic, and crude-oil refining production also declined. Lumber, paperboard, electric power, and steel output increased, while coal production was unchanged from the prior week. Before calculation of the four-week moving average, the index fell to 177.8, from 178.2 in the preceding week.

BW production index copyright 1990 by McGraw Hill Inc

LEADING

Change from last week: –0.3%
Change from last year: –4.9%



The leading index slipped lower for the week ended Nov. 10, its 16th consecutive weekly decline. In the latest week, higher stock prices, lower bond yields, and faster growth in real estate loans offset a drop in materials prices, a smaller number of business failures, and slower growth in M2. As a result, the index, before calculation of the four-week moving average, stood at 209.7, unchanged from its level of the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (11/17) thous. of net tons	1,912	1,887 #	12.1
AUTOS (11/17) units	98,740	108,690r #	–25.9
TRUCKS (11/17) units	58,254	54,255r #	–19.4
ELECTRIC POWER (11/17) millions of kilowatt-hours	52,078	52,102 #	1.3
CRUDE-OIL REFINING (11/17) thous. of bbl./day	12,723	12,547r #	–4.7
COAL (11/10) thous. of net tons	21,380 #	21,332	3.5
PAPERBOARD (11/10) thous. of tons	767.6 #	757.8r	6.6
PAPER (11/10) thous. of tons	764.0 #	784.0r	0.9
LUMBER (11/10) millions of ft.	443.1 #	416.7	–17.7
RAIL FREIGHT (11/10) billions of ton-miles	20.8 #	21.4	3.0

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (11/20)	129	130	143
GERMAN MARK (11/20)	1.48	1.47	1.80
BRITISH POUND (11/20)	1.97	1.96	1.56
FRENCH FRANC (11/20)	4.98	4.96	6.15
CANADIAN DOLLAR (11/20)	1.16	1.16	1.17
SWISS FRANC (11/20)	1.25	1.25	1.61
MEXICAN PESO (11/20)[3]	2,923	2,927	2,645

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (11/20) $/troy oz.	380.000	383.900	–4.8
STEEL SCRAP (11/19) # 1 heavy, $/ton	107.00	107.00	8.6
FOODSTUFFS (11/16) index, 1967 = 100	211.4	209.6	–2.4
COPPER (11/17) ¢/lb.	120.3	118.6	–0.1
ALUMINUM (11/17) ¢/lb.	74.0	74.5	–2.6
WHEAT (11/17) # 2 hard, $/bu.	2.77	2.85	–36.2
COTTON (11/17) strict low middling 1-1/16 in., ¢/lb.	69.59	69.20	4.4

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chan year a
STOCK PRICES (11/16) S&P 500	318.34	310.71	6
CORPORATE BOND YIELD, Aaa (11/16)	9.30%	9.38%	5
INDUSTRIAL MATERIALS PRICES (11/16)	103.1	103.6	2
BUSINESS FAILURES (11/9)	348	307	56
REAL ESTATE LOANS (11/7) billions	$383.6	$382.6r	8
MONEY SUPPLY, M2 (11/5) billions	$3,332.9	$3,332.4r	4
INITIAL CLAIMS, UNEMPLOYMENT (11/3) thous.	448	443	29

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chan year a
CONSUMER PRICE INDEX (Oct.)	133.5	132.7	6
REAL GROSS WEEKLY PAY (Oct.)	$254.93	$260.38	–3
HOUSING STARTS (Oct.) annual rate, thous.	1,041	1,107	–26
RETAIL SALES (Oct.) billions	$152.3	$152.1r	4

Sources: BLS, Commerce Dept., Census Bureau

MONETARY INDICATORS

	Latest week	Week ago	% Chan year a
MONEY SUPPLY, M1 (11/5)	$822.6	$820.2r	4
BANKS' BUSINESS LOANS (11/7)	319.3	319.5r	0
FREE RESERVES (11/14)	658	288r	–23
NONFINANCIAL COMMERCIAL PAPER (11/17)	155.0	153.7	19

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed in a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (11/19)	7.72%	8.00%	8.46
PRIME (11/20)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (11/19)	7.83	7.87	8.43
CERTIFICATES OF DEPOSIT 3-MONTH (11/20)	7.96	7.96	8.32
EURODOLLAR 3-MONTH (11/14)	7.95	7.99	8.43

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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Readers Report

WALL STREET DOOMED? 'IT AIN'T NECESSARILY SO'

Your story "The future of Wall Street" (Cover Story, Nov. 5) indicates that U.S. securities markets and the firms that deal in them are headed for oblivion. It ain't necessarily so.

I was a draftsman of the Securities Act Amendments of 1975, which called for the creation of a national securities market system that would tie together exchange markets and "markets other than exchange markets." The Securities & Exchange Commission was given authority to implement such a system, working with the markets and their users. The idea underlying the national market system was to bring into that system all the resources of the organizations taking part in the investment decision, execution, and clearance and settlement process while allowing for individual organizations' unique skills, resources, or market position. Many of the exchange and nonexchange markets are now reexamining their situations with a view to doing exactly that. Such a movement, with the support of the government, could do much to capture the business now being done in other marketplaces.

Harvey A. Rowen
Newport Beach, Calif.

The combination of global markets, high technology, and institutional trading does not portend doom for every financial-services company. Indeed, an "increasingly savvy Corporate America" creates greater opportunities for innovative and efficient firms.

Jonathan W. Kenton
Managing Director
Transforex Capital Partners
New York

HOW THIS BUDGET WILL BLEED MEDICARE RECIPIENTS

I disagree with your conclusion in "Congress ducks the dirty work again" (Editorials, Nov. 12). You state that beneficiaries of medicare will pay just $10 billion in higher out-of-pocket costs. The truth is that all medicare recipients will wind up with higher insurance o out-of-pocket costs because most med cal providers do not cancel medicar debts just because the government doe not pay them. This is just another in stance in which Congress shifted costs- and claims a tax reduction. What w really need from Congress is a pay-as you-go budget, not one that's pray-as you-go.

Jack R. Renich
Bloomington, I

AN S&L BAILOUT SHOULD HONOR THE $100,000 LIMIT

With the government's liability fo the S&L bailout rising ever so ra idly, I would think Resolution Trus Corp. would try to limit losses whenev possible ("Who's the bailout helping Those with big, fat balances," Econom Trends, Oct. 1).

Apparently this is not the case. Ac cording to the Southern Finance Proje report, the government is protecting S& depositors above the insured limit o $100,000 per account. The report say that the average size of "jumbo" CD at the 54 largest failed S&Ls wa $407,926.

This expense, which indirectly falls o the taxpayer, is unjustifiable. Th $100,000 limit is clearly displayed at a financial institutions, and it should t the responsibility of the depositor to a here to this rule. Any deposits above th prescribed limit should be the depositor risk, not the taxpayer's, who now mus bear the cost of covering not only th actual insured amounts but also dolla belonging to irresponsible depositors.

Kevin M. Carte
Overland Park, Ka

A QUICK START FOR A FAST-FOOD CEO

Regarding "Can Barry Gibbons pu the sizzle back in Burger King? (The Corporation, Oct. 22), Gibbons i taking advantage of every major strate gic trend in the industry—cross-franchis ing (distributing Domino's pizza and us ing Paul Newman's salad dressing increasing levels of product customiza tion ("Sometimes You've Gotta Brea

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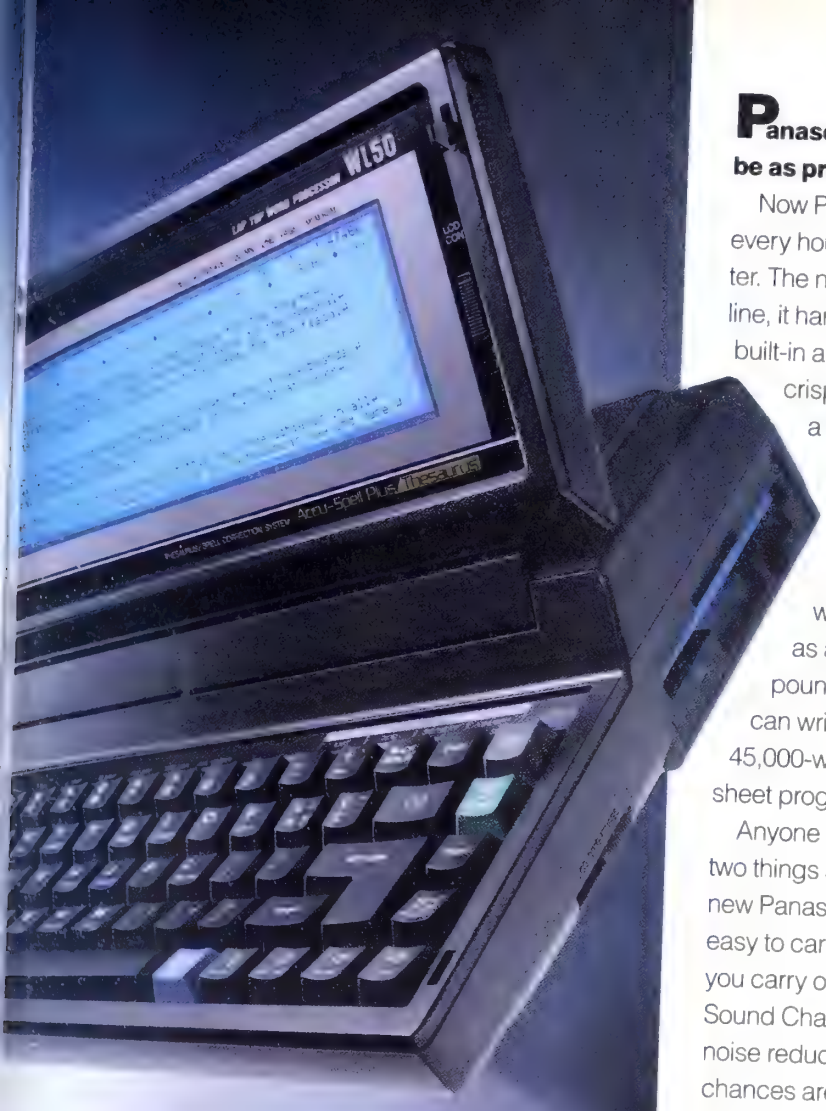

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TOR'S MEMO

A NEW LOOK FOR OUR DESIGN COVERAGE

Design has always been covered by BUSINESS WEEK. But in recent years, we have intensified ır focus. Since 1987, our first issue f the new year has featured a portolio of the best products of the preious year. In 1988, we ran a well-eceived Cover Story, "Smart esign." And both of our bonus isues on Innovation, published in ıne, 1988, and June, 1989, included ories on design, along with portfos of well-designed products.

Recently, we again stepped up our ıterest in the subject by establishing Design Dept. As this week's Cover tory on industrial designer Hartmut sslinger of frogdesign demontrates, design is becoming a part of ıe renewed emphasis on product uality at many companies. Says Seior Writer Bruce Nussbaum, who eads the new department: "A well-esigned product doesn't just look ood. It fills a need, fills it well, and fills it at a reasonable cost. Design is as much about quality and effectiveness as styling."

We are adding to our design coverage in other ways, too. We have reached an agreement with the Industrial Designers Society of America to co-sponsor its annual design competition. Knowing the society's commitment to good design, we are proud to feature its annual winners. The society, which is based in Great Falls, Va., is currently accepting entries for products introduced since Feb. 25, 1989. Look for the winners in BUSINESS WEEK next June.

Through our association with the IDSA and with our Design Dept., we will try to keep you abreast of the new trends in design.

Stephen B. Shepard

Editor-in-Chief

the Rules"), changing channels of distribution (mobile Burger King units), less consumption of red meat (the broiled-chicken sandwich), more use of sophisticated technology to combat a declining labor pool (automated cooking and service operations throughout the chain), and greater customer service and awareness (toll-free hot-line with 45 customer-service agents), to name but a few.

The industry will see a competitive shakeout within a few years, and it will be the strategic focus of the Burger Kings of the fast-food world that ensure survival. Long gone are the days of such short-term remedies as discounting.

Simon Crawford-Welch
Assistant Professor of Hospitality
Marketing and Research
University of Nevada
Las Vegas

LET THOSE WHO GOT BILKED SENTENCE MIKE MILKEN

I think your article "Mike Milken is no angel. But he's not Satan either" (Finance, Oct. 15), is a slap in the face to honest people in the financial industry. It says "On balance, [Milken] probably did more good than harm." I'm just a

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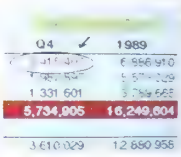

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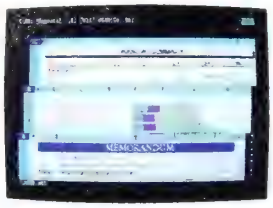

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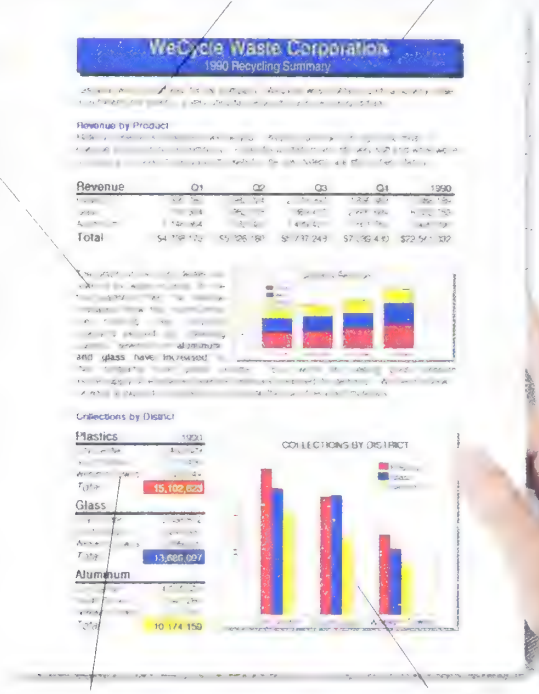

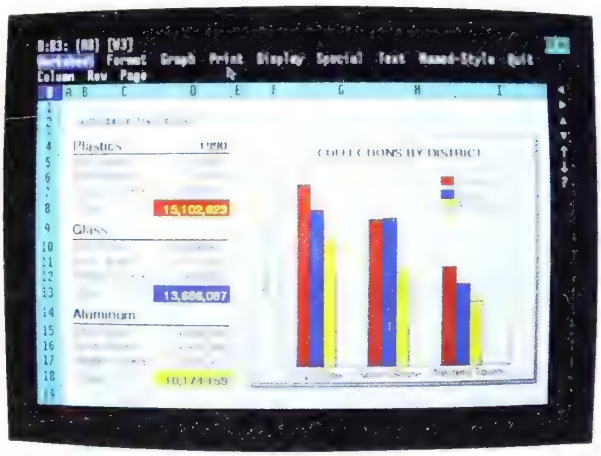

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eline investor, retired, watching sav-s-and-loan crime and the likes of Mil-n steal millions while bankrupting our ion.

'A few years in the slammer. . . ." h! I wish the judge could sentence n to a real jail until he is voted free by jury of those bilked by his devious ieming with Boesky and others.

Richard H. Creps
Sarasota, Fla.

ON'T OPEN THE DOOR PENSION-LIABILITY SUITS

Your article "Pension squabbles: Battle lines may be shifting" (Legal Affairs, Nov. 19) describes a retiree claiming an additional $87 a month in pension nefits who has spoken with 17 attorys, all of whom declined to take his se or asked for higher fees than he n pay. You then describe the argunts of pension-rights activists that the nployee Retirement Income Security t of 1974 should be changed to permit nitive damages to increase employers' tential losses and make claims "worth attorney's time."

You don't mention that ERISA permits court to award attorney's fees to an employee pursuing a claim if the court feels the action is justified. Nor is there mention of the possibility that 17 attorneys refused to take the retiree's case because he doesn't have a valid claim.

No doubt, some employees are improperly denied benefits. But in my experience, most employers and trustees administer plans with honesty and integrity. If punitive damages are permitted, a large portion of awards will end up flowing to plaintiff's attorneys, while increased defense costs will further discourage employers from maintaining pension and health-benefit plans. Finally, the cost of liability insurance—policies now exclude punitive damages—will become prohibitive. We do not need a repeat of the personal-injury litigation mess in pension and health benefits.

Raymond J. Payne
Reid & Riege
Hartford

HAVE YOU DRIVEN A '35 FORD LATELY?

What constitutes a superior product? Simplicity of design and quality components ("A new era for auto quality," Cover Story, Oct. 22).

I suggest that Detroit put seat belts and hydraulic brakes on the old 1935 Ford V8, and you will have a better, simpler, and more reliable automobile than the Lexus LS400. I drove one 340,000 miles back in the 1940s and 1950s. The car required few repairs. Those repairs it did require, I was able to do myself.

Larry O'Shaughnessy
Superior, Wis.

JUNGLE OR NO, IT'S ONE EXCLUSIVE COUNTRY CLUB

In "Where a slice could land you deep in the jungle" (Personal Business, Oct. 15), you state that the Singapore Tourist Promotion Board can arrange access to the Tanha Merah club. With membership dues of over $70,000, it deserves to be called by its correct name—Tanah Merah Country Club.

Douglas Distant
Lake Oswego, Ore.

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N.Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

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THE UNIVERSAL LANGUAGE OF QUALITY.

UNDER GOD: RELIGION AND AMERICAN POLITICS
By Garry Wills
Simon & Schuster • 445pp • $24.95

PRAISE THE LORD —AND PULL THE VOTING LEVER

Americans, in many ways, are among the world's most religious people. In poll after poll, reports Garry Wills, 9 out of 10 say they have never doubted the existence of God. But American opinion leaders, especially in the media and academia, are monumentally ignorant about the religious beliefs and practices of their fellow citizens. The result, not surprisingly, is that political analysts have no idea what's going on when, as often happens, religion becomes a factor in campaigns.

Taking this argument as a premise, Wills's *Under God* examines the role of religion in the 1988 Presidential campaign. When it sticks to its subject, it is very good. Unfortunately, Wills, whose previous books include first-rate biographies of Richard Nixon and Ronald Reagan, is only too ready to let his mind and his word processor roam. The book is more a loosely connected, even jumbled, series of essays on the role of religion in American life than an integrated work.

In fact, the only faith discussed at length is evangelical Protestantism. Wills also talks a bit about mainline Protestants, but his fellow Catholics, as well as Jews and Moslems, get short shrift. Still, *Under God* covers an astonishing amount of ground, a good bit of it quite irrelevant—from an exegesis of the Lord's Prayer to a long dissection of Saint Augustine's views on erotica.

The good news is that when Wills veers off on a tangent, you can safely skip ahead. And it's worth sticking with *Under God* to get to Wills's provocative point: Because few political journalists are knowledgeable about religion, and even fewer are comfortable talking or writing about it, coverage of the 19 campaign was needlessly muddled.

As Wills notes, two Presidential can dates, Jesse Jackson and Pat Roberts were ordained ministers, and a thi Gary Hart, studied seriously for the m istry. All three are evangelical Prot tants, a strain as American as Than giving turkey but one that mainstre political analysts continue to regard exotic. Most campaign reporting trea the religious backgrounds of Hart a Jackson as an odd factoid, like menti ing that they played in the high sch marching band. Most publications, cluding BUSINESS WEEK, referred Jackson's occupation as "civil-righ leader," not "minister."

That made it easy for commentato to overlook how deeply Jackson drew the black evangelical church—not ju for the cadence of his oratory but a for its content. The "I am someboc speeches with which he promoted vo registration had the tone of revivals; u message was firmly rooted in the tra tion of Protestant individualism.

Wills is at his best discussing the r gious subtext of the 1988 general-el tion campaign. Certainly, religion did n play an obvious role. George Bu

The new Canon E57 is simply a winner.

ugh he professed to "born again," had ver impressed anyone h his Episcopal fer-. Michael Dukakis l to mend badly bat-ed fences with the eek Orthodox Church convince voters that had any connection h organized religion all.

Wills argues that sh manipulated the bliminal symbols of igion as effectively his commercials fea-ing Willie Horton, black convict who ed a woman while on lough from a Massa-usetts prison, manip-ted the symbols of race. This argu-nt strips the mystery from two of the re baffling aspects of the campaign: enormous response Bush got when attacked Dukakis as a "card-carrying mber of the ACLU" and his success at king the pledge of allegiance a major ue.

To most reporters, the American Civil berties Union is a vigilant defender of e speech. But evangelicals believe, with some justice, that the ACLU is the vanguard of a crusade to rid American public life of all vestiges of religion. This is a more damning perception than the assertion by former Attorney General Edwin Meese III that the ACLU is a "criminals' lobby." It's one thing to defend the rights of criminals, quite another to do the work of the devil.

The pledge issue exploded, Wills writes, "for a reason that never occurred to the secularists around Dukakis. Since the removal of prayer from public schools, the pledge is the one place in almost every school's daily regimen where God can still be mentioned. . . ." To those for whom the swearing of fealty to "one nation under God" is the last line of defense against a secular world, Dukakis' legalistic explanation of why he vetoed a bill requiring Massachusetts teachers to lead the pledge was unconvincing in the extreme.

Wills teeters between erudition and showing off so often that *Under God* can be off-putting. But readers who persevere will gain a new understanding of how closely intertwined religion and politics have been throughout American history—and how journalists who overlook this link have fallen down in their task of enlightening the public.

BY STEPHEN H. WILDSTROM

Wildstrom coordinated BUSINESS WEEK's coverage of the '88 campaign.

"I AM SOMEBODY": JACKSON DREW HEAVILY ON HIS BLACK EVANGELICAL ROOTS

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WHY I'M BANKING ON A MILD RECESSION

BY ALAN S. BLINDER

Construction and cars may have bottomed out already. The oil shock is a onetime inflationary spike. And the Greenspan Fed is on guard to make sure the squall doesn't turn into a hurricane. But . . .

ALAN S. BLINDER IS THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR OF ECONOMICS AT PRINCETON AND THE AUTHOR OF *HARD HEADS, SOFT HEARTS*

I might as well start with a confession: We economists have never been any good at predicting cyclical turning points. Nor, if truth be told, are we so hot at forecasting the severity of future recessions. Let no one tell you differently.

Having now made an honest man of myself, let me say that my guess—and I choose the word advisedly—is that the 1990-91 recession began last summer and will not be a severe one. The guess itself is less important than the reasoning behind it, for that is where you get to see how the forecast might go wrong.

First, two of the most cyclically sensitive sectors of our economy, automobiles and construction, have already had severe recessions. Domestic car sales have limped along in the 7 million range for several years, despite almost continuous incentives. Housing starts are down 28% since January and down 37% from their 1986 peak. And commercial building is a disaster area. With construction approaching its 1982-recession low and with the auto industry on its knees, one wonders how much worse these sectors can get. Of course, life is full of little surprises.

Second, my forecast presumes that the current "oil shock" is much less severe than the ones in 1973-74 and 1979-80. In particular, it assumes oil prices will decline from their current heights. Prices have been propelled above $33 a barrel only by speculation based on fears of a possibly dire future, not by any serious constriction of current supply. Even a long-lasting stalemate in the Middle East should allow prices to settle back into the $20-to-$30-a-barrel range. The big question is: When? If oil prices remain high for a further six months or so, the recession may have done its damage before $25 oil returns.

Third, if the recessionary storm clouds gather and grow darker, Chairman Alan Greenspan and the Federal Reserve are on guard to make sure the squall does not turn into a hurricane. The current Federal Reserve Board seems much more growth-oriented than most of the men and women who came before them. Although they grumble about the evils of inflation, as all good central bankers must, this group seems less inflation-phobic than the average Fed. Importantly, Greenspan & Co. know that an oil shock sets in motion a process by which inflation naturally rises (as oil prices rise) and then falls (as oil prices stabilize). So they are unlikely to panic over a few bad monthly inflation reports. And finally, they are keenly aware that a deep recession in a highly leveraged economy can turn ugly, with bankruptcies galore. So, when push comes to shove, I believe the Fed will turn expansionary.

None of this, it must be noted, immuniz the U. S. economy against recession. Indee we are probably in one already. But knowi that the Fed is on guard lets me sleep bett at night. Of course, I have no special windo into Greenspan's mind, and so I could be qu wrong about all this.

Fourth, I believe—or should I say, hope that the financial tinderbox will not igni Once again, this is a vote of confidence in t people at the Fed, for the kindling surely present in abundance.

SPARKS FLYING. Almost everyone recogniz that America's financial system is now in parlous state. Many major banks—and a go many minor ones—are saddled with worrison volumes of bad loans, and the Federal Depos Insurance Corp. has insufficient resources back them up. Even some big insurance co panies, the traditional moneybags of our fina cial system, are now staring at heavy re estate losses that could impair their ability meet obligations. And need I mention the n tion's thrift institutions, many of which a sick but—at least so far—have managed stave off bankruptcy? Finally, too many maj corporations buried themselves under mou tains of debt in the 1980s, either through leve aged buyouts or as part of takeover defense Yes, they are now leaner and meaner. B they are also in poor condition to withstand deep recession.

It is easy to think of sparks that could igni the financial fire. Here's a domestic one: large bank, a major insurance company, and giant industrial corporation all fail within few weeks, thereby sending the stock marke the corporate-bond market, and the dollar in tailspins. Here's a foreign one: Losses on Jap nese stocks and real estate lead to the failu of one of Japan's giant banks. To shore thing up at home, the Japanese repatriate capit from the U. S., which precipitates a dollar c sis. To defend the dollar, the Fed jacks u interest rates, and the rout is on.

Neither of these scenarios is beyond th pale. But the first requires that the Fed abd cate its lender-of-last-resort role, which it ce tainly did not do in October, 1987. And th second requires both that the Japanese l things spin out of control and that the Fe sacrifice the U. S. economy in defense of th dollar. Neither strikes me as likely. So remain guardedly optimistic. (These days, a optimist is someone who is not predictin catastrophe.)

But notice that my forecast of a mild rece sion is predicated on a rank violation of Mu phy's Law: Many things that could go wron must not. It's a sobering thought.

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BY GENE KORETZ

A WORLDWIDE SLUMP MAY BE IN THE WORKS . . .

Worldwide recession? The idea seems farfetched to many economists—much as the threat of an imminent U. S. downturn seemed exaggerated to the fraternity not many months ago. In fact, these days the consensus among practitioners of the dismal science is that the developing U. S. downturn will be mild and relatively short—precisely because it will be offset by demand for U. S. exports generated by relatively healthy growth overseas.

The consensus view, however, may be off the mark, warns a small group of economists who spy the telltale signs of a worldwide contraction on the horizon. "We were concerned about the possibility of a global recession even before the August oil shock," says economist Anthony Riley of A. Gary Shilling & Co. "Now, we believe it's highly likely."

Support for this view comes from Columbia University's Center for International Business Cycle Research, which monitors leading indicator indexes for 11 industrial nations. The center reports that 9 of the 11 indexes are now relatively flat or declining, and growth has slowed to a modest pace in the two remaining countries, Germany and Japan. "The stage seems set for the onset of an international recession," it says.

Economist Robert J. Barbera of Shearson Lehman Brothers Inc. agrees: "Economic strength is the glaring exception around the globe, not the rule." He notes that recessions are now apparently under way in the U. S., Canada, Britain, Australia, and New Zealand. In Europe, the communist bloc is in a depression, and countries such as France, Spain, and Italy are showing signs of a sharp slowdown. And in Asia, industrial production in both Taiwan and Hong Kong is actually running below year-earlier levels.

If there is a common theme in the current global slowdown, it appears to lie in tight monetary policies. Riley points out that a sharp decline in real monetary growth in the seven major industrial countries preceded the two previous synchronous downturns that began in 1974 and 1980, and that a similar decline has been gathering steam since 1987 (chart). Further, in both prior cases monetary restraint was reinforced when surging oil prices posed a new inflationary threat—"just as it was this year."

Indeed, tight monetary policies almost guarantee that the Japanese and German economies will slow sharply as the global downturn continues, says Barbera. Japan, he notes, has been stepping hard on the monetary brakes this year to quell oil-based inflation and puncture speculative excesses in its stock and real estate markets. And Germany (which calls the tune on European monetary policy via exchange-rate links) has acted to offset the explosive fiscal stimulus resulting from reunification.

In short, both Barbera and Riley believe that tight-money policies have transformed the runup in oil prices from an inflationary shock into a deflationary one—though it has set off a temporary surge in energy prices. And they predict that the ongoing slowdown in individual countries will be amplified through trade links as falling U. S. import demand affects foreign economies and dampens their appetite for U. S. goods.

One sign that this may already be happening: Real U. S. merchandise exports in September were the lowest of any month since February.

THE GLOBAL MONEY SUPPLY IS SHRINKING

▲ PERCENT CHANGE FROM YEAR-EARLIER PERIOD, THREE-MONTH MOVING AVERAGE

*WEIGHTED MEASURE OF INFLATION-ADJUSTED M1 (CURRENCY AND DEMAND DEPOSITS) IN U.S., JAPAN, GERMANY, CANADA, BRITAIN, FRANCE, AND ITALY

DATA: A. GARY SHILLING & CO.

. . . SO HERE'S HOW INVESTORS MIGHT BRACE THEMSELVES

If there is a silver lining in the global-recession scenario, it lies in puncturing excessive fears of inflation and in the opportunity it presents to investors, says consultant Robert H. Parks, another economist who has been warning of the dangers of a synchronous downturn. Like Riley and Barbera, he believes that except for energy prices, inflationary tendencies in the economy are ebbing. Nonenergy commodity prices are falling, for example, and wage increases are slowing despite the oil-price spike. "Once the gulf crisis is resolved," Parks says, "oil prices will collapse in the context of a worldwide cyclical decline."

For intrepid investors, such a scenario spells opportunity. All three economists believe that long-term interest rates are headed lower. "Sharp real-rate declines will be necessary to revitalize the U. S. economy," says Barbera, who predicts long rates could fall to 7¼% and the federal funds rate to 5½% over the next six months. Indeed, Parks thinks overseas rates may decline even more, imparting renewed strength to the dollar.

"Ironically," says Parks, "the darkest economic times are often the most promising for the financial markets. I am advising my clients to purchase long bonds now, and the highest-quality stocks in the months ahead, when the recession hits with full force."

A CHORUS FROM BANK LENDING OFFICERS 'NO, NO, NO'

Say goodbye to the credit binge of the 1980s. Robert H. Chandross of Lloyds Bank notes that total private-sector debt last quarter hit its second-lowest growth rate in 35 years, as banks continued to tighten lending standards for real estate ventures and large corporate borrowers. The good news is that the major adjustment in debt growth may be already behind us, says Chandross. The bad news: "Even with greater Fed ease, a pickup in lending activity may be many months away."

THE OIL-PRICE SPIKE IS STARTING TO SKEWER DEMAND

Oil supply and demand in the U. S. is responding rapidly to the conservation and production incentives provided by high oil prices, reports Adam E. Sieminski of Washington Analysis Corp. He says preliminary estimates indicate that U. S. oil production, which had been running about 500,000 barrels a day below 1989 levels prior to the invasion of Kuwait, was down only about 150,000 barrels a day in October.

Meanwhile, total oil demand fell by almost 1 million barrels a day from October, 1989. Gasoline and distillate-fuel demand dropped by 3.5% and 5.5%, respectively, while residual-fuel sales plummeted by 400,000 barrels a day—nearly a third—partly due to natural-gas substitution. About the only category to post an increase was jet kerosene, where demand was fueled by military needs.

1945.

1955.

1965.

1975.

1980.

1984.

1987.

1990.

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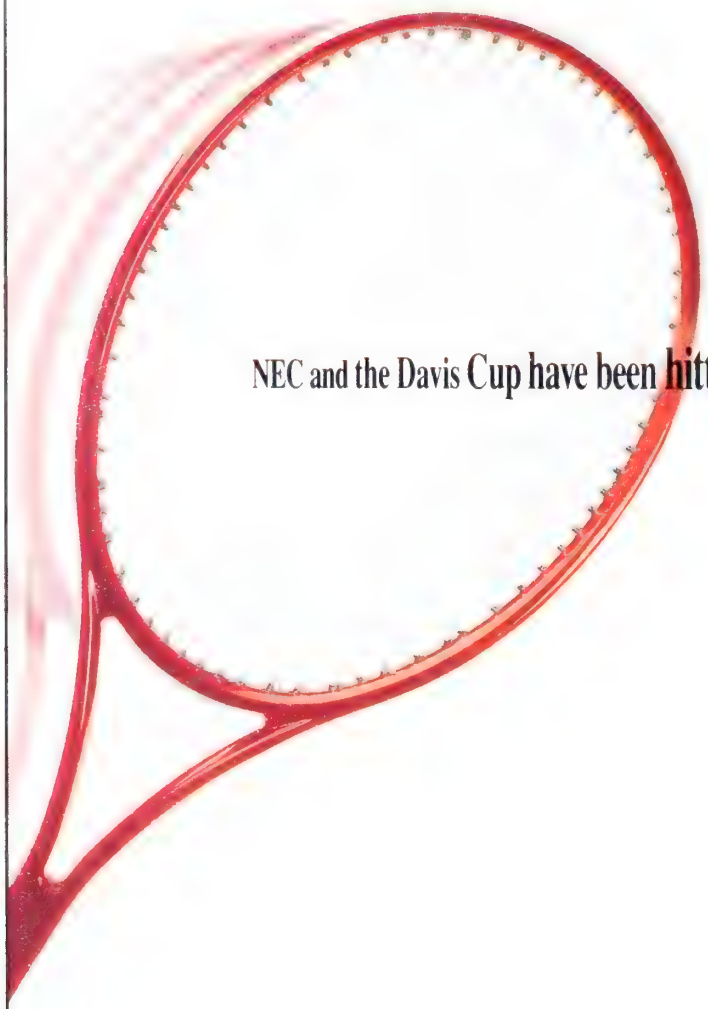

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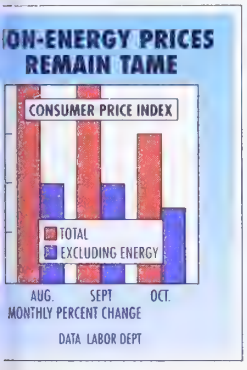
CEMBER 3, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

THE COLD WIND OF THE ECONOMY S PUTTING PRICES ON ICE

That chill you feel sweeping through the U. S economy is beginning to have at least one beneficial impact: It's cooling down inflation. The price outlook for 1991 wasn't too bad to begin with. The sluggish economy had already produced some moderation in the rate of goods prices. But now, an outright recession will fuse the flames under service prices as well.

Services have been inflation's problem area. Rapid wage growth, with no offset from productivity gains, has been pushing up unit labor costs and putting a floor under the growth of service prices. But as the recession spreads to the service sector, weaker demand will force companies to slash labor costs. And that will brake the service sector's wage-price spiral.



This may well be a service-sector recession. Far more of the economy's problems are concentrated in services than in the past. In particular, profits in many service industries are in a severe squeeze right now, because unit labor costs are rising faster than prices.

This time, manufacturing is in much better shape to weather a downturn. Factory productivity has posted solid gains. Manufacturers are exporting a record percentage of their output. And factory inventories relative to sales are at a record low.

In a broad sense, however, people are the service sector's inventory. Finance, banking, real estate, insurance, advertising, retail trade, and state and local government are the areas in the most trouble, and they account for about half of all service jobs.

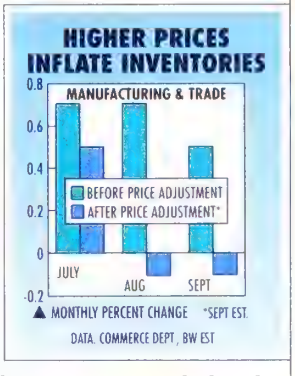
During the past two years, employment in service-producing industries has risen at an annual rate of 3%, but real gross national product in services has grown at only a 1.7% pace. With service GNP likely to weaken further in a recession, the imbalance between jobs and output will mean more layoffs. But it will also mean lower wage growth and less heat under prices.

EXCEPT FOR OIL, PRICE HIKES HAVE SLOWED

Although inflation fundamentals are looking better, oil is still a wild card, since no one can predict how the crisis in the Middle East will play out. So far, however, the weak economy has prevented any spillover of costlier energy to prices elsewhere (chart).

The consumer price index rose 0.6% in October, pushed up by a 4.5% surge in energy prices. The increase in the CPI was less than the oil-fueled advances of 0.8% in each of the two previous months, but it was still a rapid pace.

In the three months after Iraq invaded Kuwait, however, nonenergy prices remained tame. The CPI rose at an annual rate of 8.9% during that period, up from 4.4% during the prior three months. But excluding energy, the CPI has actually eased. Since the crisis began, nonenergy prices have risen only 4.5%, down from 5.2%.



Higher energy prices are not only distorting inflation numbers. They have also made increases in business inventories look excessively large. Stock levels of manufacturers, wholesalers, and retailers rose 0.5% in September, after an even steeper gain of 0.7% in August. But the higher value of oil-related inventories accounted for much of those increases. Adjusted for prices, inventories fell (chart). That means stock levels remained under control going into the fourth quarter.

In turn, the jump in inventory values inflated last quarter's corporate profits. When the Commerce Dept. reports on third-quarter earnings on Nov. 28, book profits are likely to post a rise from the second quarter. BUSINESS WEEK estimates, however, show that operating profits, which are adjusted for the big rise in inventory values, will probably be down.

HOUSING IS SKEWING SERVICE INFLATION

Ignoring the surge in energy costs, inflation has moderated in recent months, mainly because of a slowdown in service prices. During the past three months, prices of nonenergy services have risen at an annual rate of 5.7%. That's still pretty fast, but the pace is far below the 7% rate of the previous three months.

A big factor in that moderation has been homeowners' costs. Until recently, the Labor Dept.'s method of measuring these costs had overstated them, since the government's calculation tended to lag the weakness in real estate. Homeowners' expense is 20% of the CPI.

But now, the measure is coming more in line with reality. In the past three months, the cost of homeownership has risen at an annual rate of only 3.1%, down sharply from an 8.4% rate in the previous three months. Housing inflation is sure to slow further. Weak demand is causing an oversupply of houses for sale, and that's forcing sellers to slash prices.

The stagnant market is also hurting homebuilding. In

LAU HOFFMANN/BW

October, housing starts fell to an eight-year low of just over 1 million, at an annual rate, with construction of multiunit projects falling to 156,000—the lowest on record. And starts probably haven't touched bottom yet.

As the recession progresses, service inflation will moderate further, with the possible exception of health care. The cost of medical services is up 9.8% from a year ago. Even so, U. S. inflation could fall to about 4% by the end of next year when—with any luck—the gulf crisis will be a fading memory.

THE WEAK DOLLAR'S MUTED IMPACT

The sluggish economy may also mute the inflationary impact of a declining dollar, which often contributed to price pressures in the past. The dollar's slide hasn't shown up in import prices yet. Although the dollar has lost 11.8% of its value against the currencies of our major trading partners during the past year, prices of imports other than oil haven't risen much at all.

This suggests that foreign competitors are cutting their profit margins to maintain market share in the U. S. That's what happened when the dollar began to slide in 1985.

An exchange-rate shift usually takes about 9 to 12 months to show up in pricing. So import prices may begin to pick up by early 1991. But with U. S. demand so weak, even if foreigners attempt to raise prices, U. S. buyers may not be willing—or able—to go along.

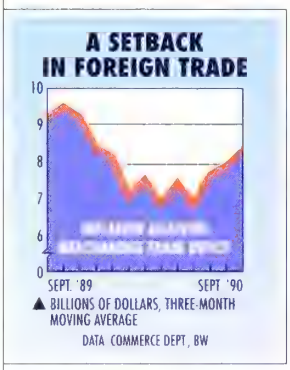
PRICIER OIL MEANS SKIMPIER IMPORTS

Uncertainty in the Middle East also plays a part in the outlook for foreign trade. The hypergains in oil prices and supply disruptions mean that fewer barrels are being imported. And the larger overall oil bill means less money for other imports. Both suggest that real import growth should decline this quarter.

Already, weak demand in the U. S. is depressing import growth. Imports fell 2.4% in September, to $41.3 billion, despite a surge in the dollar value of oil product Petroleum imports actually fell, after adjusting for th 23.5% jump in prices. All other imports were down b 5.5% from August and were unchanged from a year ag

Exports are also hurting from the oil shock, sinc other countries must devote more of their resources t paying their own higher fuel bills. Also, high energ costs threaten to derail the expansions in some econo mies, which would reduce demand for U. S. goods.

Foreign shipments should show a little more zip i 1991. That would reverse this year's slowdown i growth. In September, exports slid 2.2%, to $31.8 billio And for the first nine months of this year, foreign shi ments are up just 7.9%, a lot less robust than the 12.8 advance for all of 1989 and the 26.9% clip of 1988.



But like imports, exports re spond to a decline in the dolla after some time has passed. A increased price advantag should mean a rebound in ex port growth next year, as lon as other economies don't sli into recession. In particular, ex ports of capital goods shoul continue to shine.

Cuts in imports and the re newed vigor in exports shoul put the trade deficit back on a downward trend. Th trade gap widened in the third quarter (chart), mostl reflecting deterioration in July and August. In Septem ber, the trade deficit narrowed again, dropping to $9. billion, down from $9.7 billion in August.

Improvement in the trade deficit will help soften th recession's blow in manufacturing. But services have n such cushion, which makes them more vulnerable to th slump in domestic demand. A service recession will pu inflation on ice, but in the process, many service worker are likely to be frozen out of their jobs.

THE WEEK AHEAD

GROSS NATIONAL PRODUCT (REVISION)

Wednesday, Nov. 28, 8:30 a.m.
Economists surveyed by McGraw-Hill's MMS International expect that the Commerce Dept.'s revisions to GNP will show no change from the original estimate that the third-quarter economy grew at a 1.8% annual rate. The consensus, however, projects that the economy is declining at a 1.5% annual pace this quarter. The economists also expect that last quarter's GNP price deflator was little changed, rising at a 3.4% annual rate.

CORPORATE PROFITS

Wednesday, Nov. 28, 8:30 a.m.
Aftertax profits of nonfinancial corporations probably were about flat in the third quarter, compared with the second, says the MMS consensus. Profits have been sagging since early 1989. In the second quarter, they stood 4.4% below their year-ago level. Aftertax profits got a boost from inventory accumulation. That means operating profits, which exclude inventory and depreciation charges, were down last quarter.

DURABLE GOODS ORDERS

Wednesday, Nov. 28, 8:30 a.m.
New orders for durable goods probably were flat in October, after declines of 0.9% in August and 1.4% in September. A drop in demand for cars probably led the weak October showing. Orders for defense goods likely increased, because of the gulf crisis.

PERSONAL INCOME

Thursday, Nov. 29, 10 a.m.
Personal income probably rose a sma 0.1% in October, after a 0.5% gain i September. Wages and salaries likel fell in October. Consumer spendin probably increased by 0.2% in Octobe but rising fuel prices caused most of th gain. In September, spending jumpe 1.1%, led by higher car sales.

LEADING INDICATORS

Friday, Nov. 30, 8:30 a.m.
The MMS consensus expects that the gov ernment's index of leading indicators fe by 0.9% in October, its third consecutiv drop. The deterioration suggests th economy is falling into recession.

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DECEMBER 3, 1990

A LONG, GRIM WINTER

WILL GORBACHEV BE ABLE TO HOLD ON?

This may just be the ultimate cold war irony. After Stalin blockaded West Berlin in 1948, Western allies began stockpiling food around town to keep 2 million Berliners going for a year. For nearly two generations, $500 million worth of grain, canned meat, and milk powder has been kept in caches and refreshed every 24 months. Now, the food may finally be put to use—feeding hungry people in the Soviet Union.

The Soviets are bracing for an exceedingly nasty winter, and no one knows it better than President Mikhail Gorbachev. In Moscow, chaos and popular discontent are spiraling upward at a frightening pace. Any other autumn, this year's vegetable harvest would have been splendid. But much of it didn't leave the fields. Farmers, students, and factory workers who traditionally have been mobilized to bring in the crops just thumbed their noses at the Communist Party bosses who tried to direct them.

Defiance runs even deeper in the tiny Baltic states. They are setting up customs checkpoints at borders to keep neighboring republics from buying up their superior goods. Clear across the country, in Vladivostok, power has been flickering on and off since September. In Leningrad, all basic foodstuffs will be rationed starting Dec. 1 to ease the worst food shortages since World War II. On Nov. 20, Leningrad Mayor Anatoly Sobchak issued an unprecedented plea for foreign emergency aid.

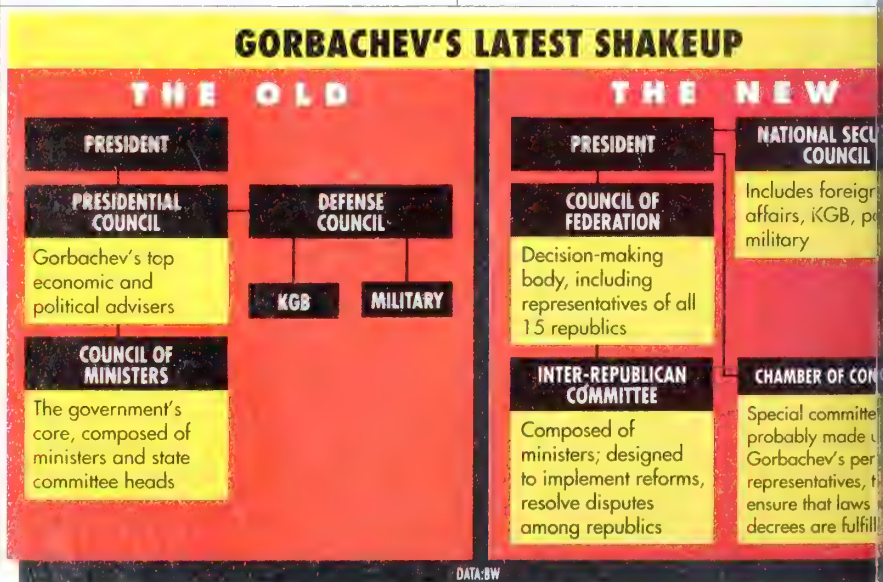
QUICK HANDSHAKES. The Soviet crisis comes at a pivotal point in East-West relations. On Nov. 19, Gorbachev swooped into Paris for the Conference on Security and Cooperation in Europe. There, with the leaders of 33 other nations, he signed a sweeping arms control agreement. He also laid plans to host a January summit with President Bush. But he could hardly waste a moment celebrating. For, while Western leaders have offered emergency aid to help get the Soviets through the winter, internal strife may keep the food and supplies from getting to those who need them most—threatening Gorbachev's very hold on power.

Making matters worse, Gorbachev's dramatic reorganization of the Soviet government (chart), announced on Nov. 17, is under heavy fire from many, most notably Russian President Boris N. Yeltsin. Without the backing of at least the Russian republic, home to half the Soviet population and most of its resources, Gorbachev's reorganization seems doomed—and the union is likely to slip further into decay.

Even by Soviet standards, the economic landscape is bleak. Only one-half of the usual stocks of potatoes is available in Russia. Many cities have distributed ration cards allowing adults to buy only two pounds of meat a month at ridiculously low, subsidized prices in state stores. In those same towns, meat is plentiful, though exorbitantly expensive, in farmers' markets. That's because farmers are refusing to sell food to the state stores. "We need direct, emergency help," says Nikolai M. Shmelev, an economist at Moscow's Institute for the Study of the USA & Canada. "Without it, there will be 100% rationing of everything. There will be ruthless a… cruel money reform and violence in t… republics."

Gorbachev's latest round of Kremli… musical chairs was supposed to placa… the republics and quell growing disc… der. At first, the fifth governmental r… organization of his five-year tenure w… met with overwhelming approval, ev… from some of his harshest critics. B…

GORBACHEV'S LATEST SHAKEUP



Homeless camp near Red Square: Only one-half of the usual stocks of potatoes are available in Russia, and many cities are rationing

thin two days, Yeltsin, Gorbachev's chrival, dumped cold water on the heme, claiming it concentrated too uch power in the central government. eltsin asserted that the laws of Russia ould take precedence over orders from orbachev's central government.

The republics have been trying Gorbaev's patience for some time now. One ample: A recent Kremlin decree ordered prices to be freed for luxury goods on Nov. 15, but the Russian republic and Kazakhstan ordered stores to disobey it. Yuri N. Pakhomov, a sociologist with the Ukrainian Academy of Sciences, dismisses the government's decrees as "fiction, the continuation of old-standing imperial policy." As part of his latest reorganization, the Soviet leader has proposed setting up a Chamber of Control, possibly to be made up of the police and KGB, to enforce his economic decrees in the provinces. But such strong-arm approaches, many Soviets fear, ultimately could lead to bloodshed.

Tension between Moscow and the republics underscores the huge problems in giving aid to the Soviets—not the least of which is deciding whom to give it to. "Legally, Gorbachev and Moscow to us are still the parties to talk to," says Eberhard Schulz, deputy director of the German Foreign Policy Society, a Bonn think tank. "For the same reason, we don't deal with the Baltic republics separately, and this has been a common policy agreed [to] within NATO."

Westerners and Soviets are wary that aid shipments could end up on the huge Soviet black market. "There were supplies before, but they don't reach the real people who need them," says Antonina Donskaya, a retired magazine editor who stood in line for 90 minutes at a state food store in downtown Moscow. "All the supplies go somewhere else—to the mafia."

Transportation also will be a major hurdle. "We know that Soviet railroads are incapable of processing large shipments because they are logjammed at border-crossing points and at unloading sites," observes Gottfried von Alten, an Eastern Europe specialist at Orenstein & Koppel, a construction machinery subsidiary of the steel and machine-building group Hoesch. But he adds: "We must do it before the situation deteriorates to the extent where it becomes unpredictable."

There's a good chance the U. S. will chip in with some aid as well. The Bush Administration has stepped up planning for food and medical supplies in recent weeks. President Bush may authorize emergency shipments of official supplies. Another alternative: Washington would coordinate shipments of food and medicine donated by voluntary organizations, perhaps even via military aircraft.

DEBT SQUEEZE. Western Europeans have taken bolder steps to help. In Rome, the Italian government promised Gorbachev $5 billion in credits over five years. Later, at the Paris summit, he drummed up pledges for $10 billion from Germany, France, Spain, and others. Some of the aid will be in food, such as the potatoes now being delivered by Germany. Also included are industrial and scientific aid and some lines of credit.

Yet even some high-level Soviets have doubts about how helpful their neighbors' handouts will be as things stand. "If we do not put our house in order, this assistance will not help," says Soviet State Bank Chairman Victor Geraschenko. "We [also] need to have a firm understanding of who will be responsible for payments." Already, the Soviet Union faces a debt squeeze. Next year, it must pay back about $22 billion in loans—extremely difficult given the shortage of hard currency and the expected $100 billion-plus deficit.

For Irina Gazina, a 64-year-old retired farm worker on a monthly pension of $150, that's grim news. "Where we live, there is nothing to buy," she says. "I'll tell you, there will be hunger. After a ration system, that always comes next." Sadly, as Gorbachev and the Soviet people hurtle toward this winter of despair and disintegration, hunger is about the only thing they can be sure of.

By Rose Brady in Moscow and Peter Galuszka in New York, with Igor Reichlin in Bonn and bureau reports

INITIAL ACCOLADES, GORBACHEV'S
T REORGANIZATION IS DRAWING FIRE

Commentary/by Mike McNamee

THIS 'IMPOTENT' FED STILL HAS PLENTY OF PUNCH

Now that the Federal Reserve Board is cutting interest rates, you probably think the economy's rescue from recession is only a matter of time. Silly you. Don't you know the pundits have a new bogeyman for you to worry about? It's no longer enough for the Fed to pump money into the economy, they say, because the nation's shell-shocked banks have shut off the credit spigots. As Harvard University economist Benjamin M. Friedman puts it: "Financial stringency today doesn't have a lot to do with interest rates." If the Fed eases, the argument goes, cash will pour into the banks—but nothing will come out.

The fear that business would borrow but the banks won't lend has some basis in reality. Banks are indeed hurting. Under pressure to increase their capital while coping with losses in overbuilt real estate markets, they've tightened credit standards and cut back on commercial lending.

The money that bankers have to invest is now going into safe, liquid Treasury bills. Banks' holdings of U.S. government securities shot up 17.9% in the 12 months ended in September, while commercial and industrial (C&I) loans outstanding rose a scant 2.1%. As a result, many U.S. businesses have been forced to turn to foreign banks—which accounted for all the net increase in C&I loans—or the commercial-paper market, where issues by nonfinancial companies rose 16.2% in the 12 months ended in July.

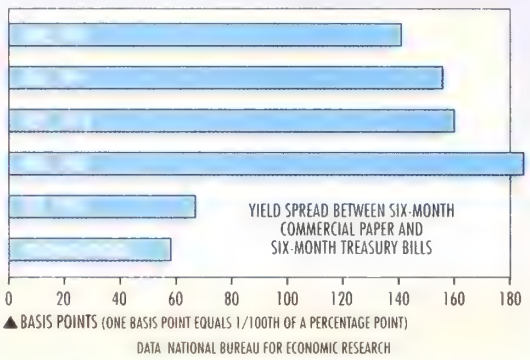
LIQUIDITY TRAP. Little wonder, then, that a wide range of economists are starting to sound the alarm. Says Irwin L. Kellner of Manufacturers Hanover Trust Co.: "Rates are going to have to fall a lot farther, a lot faster, than this Fed seems to contemplate, if it wants to save this economy." David M. Jones, chief economist at bond firm Aubrey G. Lanston & Co., is even more worried: "We're closer to the '30s than we have ever been."

The legion of worrywarts is putting a new twist on an old phobia. Fears of an "impotent Fed"—a central bank whose efforts to reignite the economy fizzle out—surface in every slump. In past recessions, economists warned of what they call a liquidity trap, in which business is so depressed that banks can't find takers for the funds the Fed is pumping out. It hardly matters that there's no conclusive evidence the economy has ever fallen into such a chasm, even in the depths of the Depression. You'll still hear economists delivering variations on the warning: "The Fed can't push on a string."

But don't give up on the Fed just yet. "The 'Fed impotence' song is one of the longest-playing records in the country," says William C. Melton, chief economist at IDS Financial Services Inc. "But it's never come true." The central bank still has a lot of clout when it decides to stoke the economy.

WHAT CREDIT CRUNCH?

Credit typically becomes very tight before a recession—shown by relatively higher yields on commercial paper. Not so now



Banks may be shell-shocked, but they're by no means comatose. While the 10 biggest money-center banks need to raise $7 billion to meet stricter capital standards by 1992, economist David D. Hale of Kemper Financial Services Inc. calculates that the next tier of banks—the 11th through 50th largest, with total assets of $1 trillion—can generate $5 billion a year in new capital. With that cash, those superregional and regional banks can expand lending by $60 billion to $80 billion a year, enough to lift industrywide lending at a 4% annual rate, Hale says.

> If the Fed eases, the argument goes, cash will pour into the banks —but nothing will come out

Nor are banks the Fed's only pipeline to the economy. If bankers sock their funds into T-bills, driving down rates there, other investors will decide that the rewards of commercial paper or corporate bonds outweigh the added risks. And those markets, not banks, increasingly set the rates that determine the economy's health. Mortgage rates now are pegged to market rates, not banks' cost of funds. Many business borrowers can turn to the commercial-paper market, which has grown twice as fast as bank commercial lending in the past five years. "There's a lot of room for Fed action outside the banking sector," says Princeton economist Ben S. Bernanke.

CREDIT-STARVED. Indeed, for all the banks' problems, many traditional signs of a credit crunch are missing. Rates on commercial paper, which normally spike several months before a recession, have barely budged (chart). And corporate borrowers are starting to rush out bond issues to take advantage of the recent small drops in rates. In most downturns, the bond calendar comes alive when the spread between short- and long-term rates hits 3 to 3.5 percentage points, says Jerry Jordan of First Interstate Bank. Today, that gap is only 1.5 points.

Even so, the banks' woes are real and will have a serious impact. "IBM doesn't need a bank," says Jeremy C. Stein, a Massachusetts Institute of Technology economist who studies commercial paper, "but smaller companies that don't have IBM's access to the markets may get left behind." And credit-starved businesses in Texas and New England can attest to the costs of a damaged banking system.

But there's little the Fed can do in the short run to repair banks' balance sheets. The best Fed Chairman Alan Greenspan can do is cushion the economy in hopes that the recession won't take down too many financial institutions. Fortunately, regardless of what many on Wall Street say, Greenspan has the power to boost the economy when he decides the time is right—a time most observers think is now.

KNOW WHAT THE CONSUMER WANTS": BILL HAMMACK OF DAYTON'S IS PREDICTING A GOOD CHRISTMAS

TIS THE SEASON 'O BE WORRIED

ervous retailers are rolling out the bargains to lure wary shoppers

Bill Hammack, hemmed in by parents and their wide-eyed tots, inches past 150 almost-lifesize mechanical dolls that are acting out the ory of Peter Pan. After the show, oppers cheerfully pour into a gift shop snap up crocodile cookies and Peter n books. Playing in Dayton's department store in downtown Minneapolis, e Peter Pan show is a major holiday traction. Hammack, Dayton's store anager, says that he expects about lf a million visitors to see the show is year. "I think it'll be a good Christas," says Hammack.

This year, for most retailers, having a od Christmas is more important than er—and probably a lot tougher to get. etail sales have been soft all year, and r October they barely budged, partly cause unusually warm weather cut aprel sales. Now, as Christmas apoaches, war fears, layoffs, and a softing economy are making for a rvous consumer. "This is a dicey ne for the American economy," plains R. H. Macy & Co. Chief ecutive Edward S. Finkelstein. Ve didn't expect it to be quite as ey as it is."

INGY SANTAS. Despite the oom, Irwin Cohen, a managing rtner of Deloitte & Touche, still es a sales gain for retailers this ristmas, but maybe of only 1% 3% overall. That's effectively a crease when you allow for infla-n. And according to a Deloitte ll, nearly half of the 1,262 store executives surveyed by the firm expect profits to be flat or to fall. And consumers seem determined to crimp Santa's style. In a BUSINESS WEEK/Harris poll, 54% of those surveyed expected to spend less this Christmas than last year.

Chats with shoppers and storekeepers confirm that view. In the Minneapolis Dayton's, John A. Polta, a 33-year-old father of two from the suburbs, says he plans to spend 25% to 35% less this year on Christmas gifts because reduced overtime has cut into his earnings. Says his wife, Anne: "This year we'll buy a lot at Target," a discount chain owned by Dayton-Hudson Corp., Dayton's parent. At Chicago's Bloomingdale's, Raija Casey, a mother whose household income tops $75,000 a year, expects a less extravagant holiday. "I'm clipping coupons for the first time in my life," she says. And at The Gap in the tony Highland Park Shopping Village in Highland Park, Tex., store manager Jill A. Montry is picking up the same feelings from shoppers: "People are taking a step back and re-evaluating their budgets."

Even at Dayton's, which for much of the year has benefited from a still-strong regional economy, Hammack sees his store's sales increasing "in the low single digits," down somewhat from 1989's gain. On Nov. 20, Dayton reported that its net fell 9%, to $58 million, in the third quarter, partly because of expenses related to its acquisition of Marshall Field's, and partly because same-store sales at its department-store division dropped 1%.

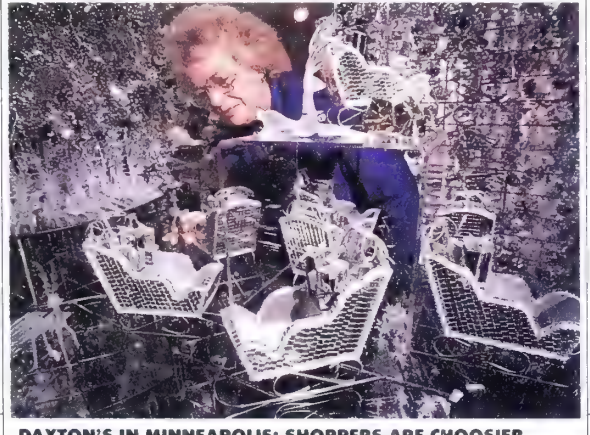
But Hammack still figures his merchandise will move. "I know what the consumer wants," he says. That seems to be the basics: sweaters, perfumes, and the like. To move more expensive items, Dayton's is knocking 10% to 40% off the price of furniture, electronics, and carpeting, and then waiting to bill customers until April.

Retailers and industry analysts are anxiously wondering whether such promotions and special deals will get out of hand the way they did in 1989. Some retailers say that so far they are not running as many promotions as they did last year.

INVENTORY CLAMPDOWN. But tempting offers and appeals to dollar-conscious consumers abound. Bloomingdale's, the upscale department-store chain owned by Federated Department Stores Inc., is highlighting 150 moderately priced items—cotton sweaters and the like—in all its stores. In California, the Emporium chain of Carter Hawley Hale stores has hooked up with AT&T to offer customers free, three-minute telephone calls anywhere in the world. And Carter's Broadway chain is automatically entering customers who use their charge cards into a sweepstakes offering a trip to Paris or cancellation of all Broadway charge-card debt incurred in December.

Retailers are counting on a clampdown on inventories to keep discounts from getting out of hand. But consumers are learning to hold out for the best deals. Says Julian Taub, Bloomingdale's senior vice-president for planning: "We think Christmas is going to come very late." For retailers, it's going to be a suspenseful few weeks.

By Julia Flynn Siler in Minneapolis, with Laura Zinn in New York and bureau reports



DAYTON'S IN MINNEAPOLIS: SHOPPERS ARE CHOOSIER

INVESTMENTS

TO BUY EQUIMARK STOCK, FELLHEIMER PUT UP THIS $5.8 MILLION PHILADELPHIA BUILDING

THAT WAS CROW ALAN FELLHEIMER HAD FOR THANKSGIVING

A misguided expansion plan has Equimark and its ex-chairman reeling

Where's the best place to invest a small fortune? To bankruptcy attorney Alan S. Fellheimer, the answer seemed obvious: a bank. In 1985, Fellheimer gave up his Philadelphia law firm to become chairman of nearly comatose Equimark Corp. Convinced the Pittsburgh bank holding company could be turned into a money machine, he borrowed heavily to buy an 8% stake. With $9.5 million invested, Fellheimer often bragged to his managers that banking would make him "megarich."

Nowadays, he's more worried about taking a megabath. After Fellheimer's misguided expansion strategy helped tip Equimark back into the red, last month he decided to step down. On Nov. 17, the flamboyant attorney was replaced by Gary W. Fiedler, 46, an experienced banker and former chief of Hogan Systems Inc., a Dallas-based bank software supplier. Adding to Fellheimer's woes, a unit of MNC Financial Inc. has filed a civil suit in U. S. District Court in Baltimore, seeking the balance of $11.7 million that its banking unit lent Fellheimer and others to buy Equimark stock.

Although Fellheimer hasn't missed any loan payments, MNC has found him in technical default because of Equimark's sorry financial condition. MNC also is worried that Fellheimer might have a tough time scraping together annual principal payments of roughly $300,000 now that he's out of work. MNC Chief Executive Alfred Lerner declined to comment on the case. Fellheimer claims that regulators pressured the troubled Maryland superregional bank to call in the loan. But rather than fight it, he has offered to hand over part of his principal payment before it's due in January. That, he hopes, will get MNC off his back. He might buy some time but only if Equimark can stanch its losses, which through September this year totaled $50 million.

'HOLDING THE BAG.' Other Equimark insiders and former insiders are in jeopardy, too. Back in 1987, when investor Saul P. Steinberg wanted to unload his Equimark preferred stock, Fellheimer assembled an investment group. He urged executives and directors to help him raise funds to buy the 9.5% block. In late 1988, the deal was financed with an $11.7 million loan from Equitable Bankcorporation, which later merged into MNC.

Fellheimer and his wife, Judith, a former Equimark vice-chairman, took about half the stock. The remainder was purchased by 19 top executives and directors who signed notes to Fellheimer ranging from $109,000 to $1 million, according to documents filed with the Securities & Exchange Commission. So much for being good team members. Not only have the preferred shares tumbled some 65% in value, but more than a third of the executives have been pushed out. "We were believers," grouses one former top manager. "Now we're stuck holding the bag."

It may be little consolation, but Fellheimer stands to lose the most. He pledged as collateral his 83% interest in a stylish Philadelphia office building valued by MNC at $5.8 million. Ironically, the building's worth depends a lot on Equimark. According to SEC filings, Equimark's Liberty Savings Bank unit pays top dollar to rent half of the building. Real estate isn't all MNC could take from him. He also pledged as collateral most of his 8% stake in Equimark.

STICKY SITUATION. Worse yet, analysts don't think Equimark has bottomed out. Its key Pittsburgh market is softening. And Fellheimer sold off several important moneymaking operations, including a big credit-card business. To conserve cash, the board has omitted the dividend on common shares. If the losses continue, the preferred owned by Fellheimer's group could be next.

That would be a sticky one for directors, several of whom bought into the deal. The reason: The dividend is calculated to yield just enough to cover quarterly interest payments on the MNC loan, currently $800,000. Two directors admit that cutting the dividend would be an extreme move. They say the directors who bought the stock would abstain from voting if it came to that. But if losses continue to mount, the board may have little choice. Asks director Howard W. Hanna: "What's more important, keeping Wall Street happy or paying your bills?"

Fellheimer, 47, and his wife plan to practice law again. But there's no need to pass the hat. When he stepped down, he had just under $1 million in base wages remaining on his 66-month employment contract. His 5.6-acre home in the swank Sewickley Heights suburb of Pittsburgh is on the market for $1.4 million. Still, it has been a humbling experience. "It's not easy," says Fellheimer of his troubles. "I made a decision to invest in the company, and I'll pay the price."

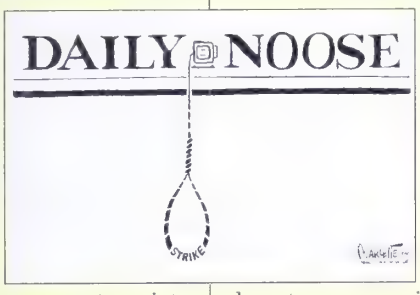
By Michael Schroeder in Pittsburgh

FELLHEIMER: BACK TO THE LAW

Commentary/by Aaron Bernstein

MAKING THE WORST OF A BAD SITUATION

A year ago, *The New York Daily News* seemed to have labor in a heads-I-win, tails-you-lose situation. The newspaper's management wanted to sweep away archaic union work rules so it could invest in new, more efficient printing technology. If its 10 unions balked and walked off the job, management would replace them. And if it couldn't put out a replacement paper, Tribune Co., which owns the *News*, could just shut it down. With the workers on strike, Tribune would escape some $150 million in severance payments.



Now, it seems Tribune's no-lose dream may turn into a nightmare defeat. Management is losing the public's sympathy. It can't get the paper delivered. Advertisers and readers are fleeing in droves. And to top it all off, in the increasingly likely event that the paper is shut down, Tribune may be on the hook for severance payments after all.

BLUNDERS. It's true that the *News* faces recalcitrant, old-line craft unions that are battling technology other papers adopted 30 years ago. But if labor has a 1960s mentality, management seems locked in a 1930s time warp. Charles T. Brumback, Chicago-based Tribune's chief executive, and James F. Hoge Jr., the *News* publisher, barreled into labor negotiations with a no-compromise attitude that was guaranteed to produce an explosion. They then fanned the flames with a series of public-relations blunders.

A partial list: They hired security men and attack dogs reminiscent of the goon-squad days. They accused the unions of racism, and then made what came across as a cynical attempt to use minority journalist groups to recruit strikebreakers. The *News* even dragged New York's homeless into the fray by giving them papers to sell on street corners.

Management's worst setbacks have come on the issue of violence. When the walkout began on Oct. 25, the *News* shouted about violent acts by the union. The charges seemed to have some validity in light of reports of intimidation against newsstand owners. But the image of the *News* took a drubbing when police began arresting not just strikers but the paper's hired guards in street altercations.

The final blow to its credibility came when rival papers reported that the *News* had hired unemployed men from the South to drive delivery trucks and tempt strikers into violence, which the drivers recorded on videotape. (Hoge said the video cameras were there to deter unlawful acts or to record them if deterrence failed.)

Quite a pickle. So where do Brumback and Hoge go from here? They might want to start by opening the door to compromise. Just two months ago, the *New York Post* asked the same unions for 20% pay cuts to stave off bankruptcy. Labor agonized, but after the *Post* opened its books to prove its plight, union members agreed to most demands. If that doesn't work, Tribune might try selling the *News* to the unions, which claim they have been working with potential backers. Granted, financing for buyouts isn't easy to come by these days, but the *News* could at least consider it.

EASY VICTORY. The *News* adamantly denies that Tribune has considered a shutdown. But even if management wants to, this option doesn't look so easy anymore. The National Labor Relations Board is investigating union charges that the *News* bargained unfairly. Such claims could take years to resolve, but Tribune ultimately may be forced to make the huge severance payments if it's found guilty.

Brumback got into this mess after scoring an easy victory in 1985 at the *Chicago Tribune*, another Tribune paper. Brumback, the *Trib*'s publisher at the time, replaced striking workers and broke the unions. This tripled the paper's margins—and helped Brumback win his current slot at the parent company. Wall Street analysts believe Hoge, 54, hopes that by repeating the chairman's triumph at the *News* he will replace 62-year-old Brumback when he retires. Barring a quick change in course, those hopes now seem doomed—unless killing the nation's third-largest daily counts as a triumph.

ACCOUNTING

TOO BIG, TOO FAST

How megagrowth sank accounting firm Laventhol & Horwath

The biggest surprise was the timing. Faced with fleeing partners, a deteriorating client base, and mounting malpractice suits, including the ongoing trial over its work for jailed televangelist Jim Bakker, partners at Laventhol & Horwath had hoped to hang on until after the profitable Christmas audit season. Instead, on Nov. 20, the once high-flying accounting firm revealed that by Thanksgiving it would become the nation's largest professional firm to file for bankruptcy.

Already, rivals are picking apart the 75-year-old firm's remains. Grant Thornton International is eyeing Trans World Airlines Inc. as a client, and Kenneth Leventhal & Co. may merge some L&H offices. Meanwhile, partners in Ohio, Las Vegas, and Los Angeles are racing to open stand-alone operations or form new partnerships. Says Los Angeles partner Saul F. Leonard: "Every partner has to make a decision on what he wants to do with his life now."

But partners won't be able to shed their pasts entirely. Under partnership laws, they're personally responsible for debts incurred during their stay. Their liabilities, including $85 million in bank debt, "far exceed" the firm's ability to pay, says CEO Robert N. Levine. The result will be a legal battle among partners that could take years.

L&H long enjoyed dizzying growth. During the 1980s, the Philadelphia firm nearly quadrupled revenues, to more than $345 million, and expanded to more than 50 offices. It carved out a lucrative niche helping investors find write-offs in financing hotels—until tax reform curbed that gambit. Along the way, L&H picked up some dubious clients.

POOR JUDGMENT? A legal assault on accountants has been especially damaging to L&H. Two years ago, after auditing a client who was pushing a bogus tax shelter involving genetically engineered cows, it became the first accounting firm to lose a jury trial under the federal racketeering law. In the PTL Ministry trial in Charlotte, N. C., L&H is fighting charges it helped Bakker appear solvent when his operation wasn't. Last year, damage awards cost L&H $57 million, says Denver partner Lawrence P. Gelfond. Scores of claims are pending.

Levine calls lawsuits an industrywide problem. But Bernard Z. Lee of the

American Institute of Certified Public Accountants says L&H was also hurt by poor judgment, such as opting for some self-insurance against malpractice.

This year, the firm was socked by a rash of defections. More than 100 of its 350 partners and 15% of its staff left or got fired. Cash fell so low, partners say, that they were tapped for capital contributions and had to go weeks without a partnership draw—pushing some to the verge of personal bankruptcy. Finally, uncertainty crushed their will to survive. Says David Robeson, a manager in the San Francisco office: "A lot of partners just want to get out and get on with their lives." But L&H's liabilities will haunt them long after the firm is gone.

By Michele Galen in New York and Joseph Weber in Philadelphia

POLITICS

REPUBLICANS MAY HAVE FOUND THE PERFECT DEMOCRAT-SLAYER

Attacking affirmative action worked like a charm this year

The Democrats are about to discover the dark side of the fairness issue. During the recent campaign, they put Republicans on the defensive by portraying the GOP as the party of millionaires. But Republicans in a half-dozen states scored big by tying their opponents to "unfair" racial quotas.

That's what you call successful test-marketing. In 1992, the quota issue will get a full-scale national rollout, promises William J. Bennett, President Bush's choice to head the Republican National Committee. And the Democrats are ill-prepared to defend themselves.

In tight races from North Carolina to California, Republican candidates helped their cause by equating Democrat-backed affirmative-action programs with hiring quotas. "This is an issue that not only polarizes the races but plays on the economic insecurities people are feeling right now," says Democratic pollster Geoffrey Garin.

'QUOTA BILL.' The GOP's opening came on Oct. 22, when President Bush made good on his promise to veto a civil rights bill. The President said that the measure, designed to reverse Supreme Court decisions that made it harder for minorities and women to win job-discrimination suits, was "a quota bill." While the legislation did not mandate quotas, business groups argued that if it became law, companies would resort to numerical hiring targets to protect themselves from lawsuits.

The veto was a bitter disappointment to civil rights leaders, whom Bush had courted for two years. But the President was willing to sacrifice his relations with black leaders to help Republican candidates in a handful of tough races.

Senator Jesse A. Helms, locked in a fierce struggle with black Democrat Harvey B. Gantt, was a major beneficiary. As soon as the President signed the veto message, the North Carolina Republican unleashed a hard-hitting television spot that showed a white hand crumpling a job-rejection letter. "You needed that job," said the voice-over. "And you were the best qualified. But they had to give it to a minority because of a racial quota. Is that really fair?" The ad helped Helms win 63% of the white vote—and the election.

Crude racial appeals paid off in Alabama and Louisiana, too. It would be easy for Democrats to dismiss these cases as the revenge of unreconstructed segregationists. But far more worrisome for Democrats is the success Republican Pete Wilson had in the California governor's race by attacking Dianne Feinstein's plan to give more state jobs to women, blacks, and Hispanics. The attacks pulled white males and Asia Americans over to Wilson's column.

The success of Helms and the othe hasn't deterred the Democrats from p paring to reprise this year's civil righ struggle. After all, blacks are a co constituency for the Democrats. Par leaders have promised that reintrodu ing the vetoed legislation is a top prio ty in the new Congress. The Administ tion is likely to counter with a stripp down version that eliminates t sections that business objects to mo But with increased majorities in bo houses, liberal Democrats hope to pa the original measure over Bush's vet

Win or lose—and the odds are st that they'll lose—Democrats seem det mined to give the GOP another shot the quota issue. Bennett is raring for fight. Those who criticize Helms's "j jection-slip" ad, Bennett told reporte on Nov. 19, "have got to realize th most Americans are troubled by this sue." He's prepared to make affirmati action a part of the 1992 President campaign, if the Democrats push ci rights.

'WEDGE' ISSUE. Democratic liberals sc at this possibility, but fear of quotas precisely the sort of "wedge" issue th the GOP can exploit to splinter the Dem cratic coalition. And in an econom slump, the question of preferential h ing gains potency. "President Bush recognizing that the quota issue is i portant to holding on to white vot that, in times of recession, would vo Democratic," says Clint Bolick, direct of the conservative Landmark Cent for Civil Rights.

Pollster Celinda C. Lake believes h fellow Democrats will remain suspect working-class whites as long as the pa ty's message seems targeted the underclass. Lake has fou that in focus groups, many blu collar workers are quick to co plain about reverse discriminatio "Democrats have failed to artic late a broader economic view Lake says. "That's scary when t economy's going down the tubes

Given Lake's findings, it shou be no surprise to Democrats in ' if George Bush takes off t gloves and starts bashing the o position for supporting quotas. H showed a similar bare-knuckl flair in 1988, when he turned fu loughed black prisoner Willie Ho ton into a symbol of Democrat permissiveness. Bush won't ha Horton to kick around next ele tion. But with the quota issue, might not need him.

By Paula Dwyer, with Tim Sma in Washington

RACIAL APPEALS: A WINNER FOR THE GOP?

NORTH CAROLINA

GOP Senator Jesse Helms hit his Democratic opponent, former Charlotte Mayor Harvey Gantt, with an ad warning that whites were in danger of losing their jobs to less qualified blacks. In defeating Gantt, Helms won 63% of the white vote

CALIFORNIA

Governor-elect Pete Wilson (R) ran ads charging that his Democratic opponent, former San Francisco Mayor Dianne Feinstein, favored job quotas. Wilson won by three percentage points

ALABAMA

Governor Guy Hunt (R) ran ads showing his Democratic challenger, teachers' union leader Paul Hubbert, in a car with two black men, one of them a young Jesse Jackson. The ad blunted Hubbert's late surge, and Hunt won by four percentage points

DATA: BW

N CALIFORNIA, NO END 'O SLAM-BAM POLITICS

Vith two Senate seats open in '92, the fur and big money will keep flying

In most places, the Nov. 6 election settled the political landscape. In California, Senator Pete Wilson's election as governor created a free-for-all. ombined with the announced retirent of 76-year-old Senator Alan Cranon, Wilson's victory has flung open the ors to every electoral wannabe in the tion's most populous state.

Before the end of the year, Wilson is pected to name his successor in the nate. But under state law, whoever ts Wilson's seat faces a special elecn in 1992 for an abbreviated term that ns out in 1994. Cranston's seat also mes open in 1992, giving California a re doubleheader: two senatorial elecns in a single year. And where there's California election, there's money, d plenty of it. "Hold on to your wals," warns outgoing Governor George eukmejian.

IOUNDWORK. By the most conservative timates, it will take $15 million to win her one of the Senate seats. But it ay be worth it. California senators are aditionally among Washington's most werful and prominent politicians. Repsenting a state with a $700 billion onomy and more than 29.5 million peoe usually means reams of publicity and ats on some of the Senate's most powful committees. It is in part a tribute the state he represents that Cranston as the Democratic Senate whip for the st 13 years.

No wonder then that most of the state's 45 House members seem to have designs on the seat that Cranston said he would give up after being diagnosed with prostate cancer. Among the Democrats who say they'll run are Robert T. Matsui and Barbara Boxer, while a third, Mel Levine, has raised $1.7 million as he mulls the race. David Dreier, a Reagan Republican, has already collected $1.6 million for his likely run.

The most formidable of all is Democrat Dianne Feinstein, who ran just behind Wilson in the gubernatorial race. With her name recognition and veteran campaign team, the former mayor of San Francisco would be the overnight front-runner.

Most of them started laying the groundwork for a Senate bid last year, when allegations first arose that Cranston sold political favors in return for contributions from former Lincoln Savings & Loan Assn. Chairman Charles H. Keating Jr. (Cranston has loudly denied the charges.) But the crowd has swelled further since Wilson won his statehouse campaign and left the second seat open.

Speculation on Wilson's choice is rampant. Early favorites included such longtime Republican politicians as U. S. Trade Representative Carla Hills and Housing & Urban Development Secretary Jack F. Kemp, a Los Angeles native. Neither wanted the short-term job, although Kemp may yet resign his Cabinet post to run for the Cranston seat.

Wilson won't even hint about his choice. But those close to him say he's looking for a moderate Republican, and to buttress GOP registration efforts, he could name a woman or minority. The names most frequently mentioned are State Senator Rebecca Morgan and Orange County Supervisor Gaddi Vasquez.

Whoever gets the job will have to mount two expensive campaigns in four years. "There are a lot of likely candidates who are going to say, 'Thank you, but no thank you,' to that kind of a rat race," says California state GOP Chairman Frank Visco.

As soon as Wilson chooses, the field will begin to divide. Stronger candidates will aim for the six-year Cranston term. Those with lighter wallets and lower ratings with California voters will go after the Wilson seat. "Everyone will be jockeying," says Matsui, who has raised $1.3 million. "For now, the Cranston seat is what's on everyone's mind."

ANTE UP. The big guns are holding back, for now. In addition to Kemp, who would have to overcome carpetbagging charges after representing Buffalo in the House for 18 years, former House member Ed Zschau may jump in. Zschau lost narrowly to Cranston in 1986. Although the candidates may not be ready, the fund-raising has already started. The two Senate races will probably soak up $60 million, estimates Boxer's campaign manager, Ed McGovern. "It will be a great year for political consultants and TV station owners, but a lousy one for the candidates," says GOP operative Ken Khachigian, a former speech writer for Ronald Reagan. Perhaps. But so far, a lot of candidates are lining up to feel the pain.

By Ronald Grover in Los Angeles, with Barbara Buell in San Francisco

S ANGELES DEMOCRAT MEL VINE HASN'T DECLARED, BUT HE AS RAISED $1.7 MILLION

DEMOCRAT BARBARA BOXER WILL LIKELY STAKE OUT THE LIBERAL END OF THE SPECTRUM

DAVID DREIER, A REAGAN REPUBLICAN, ALREADY HAS A KITTY OF $1.6 MILLION

TRADE REP CARLA HILLS, AMONG THE EARLY GOP FAVORITES, SAYS SHE WON'T RUN

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HEALTH INSURANCE

SURE, YOU CAN GET SICK— BUT NOT TOO SICK

Court battles are raging over bids to cap health coverage

Like most people with health coverage, John McGann didn't worry much about the high cost of medical care. Even when the Houston music-store employee came down with AIDS in December, 1987, he was confident his medical bills would be paid.

Eight months later, his employer, H&H Music Co., announced it was switching health plans. The new one would impose a $5,000 lifetime ceiling on AIDS-related coverage while keeping the cap for other illnesses at $1 million. "I felt betrayed," says McGann, 47, who adds that he has $20,000 in AIDS-related medical bills that he can't pay. He has sued H&H and General American Life Insurance Co., which administers the plan.

Businesses and their employees have a lot at stake in McGann's case, and in a similar suit against Atlanta-based Storehouse Inc. If the courts rule for the workers, they could jeopardize the financial health of companies—especially small ones reeling under the cost of health benefits. If management wins, employees could no longer rely on promises of coverage for catastrophic illness. "Every company in the world is waiting for this decision," says Chip Rowan, an attorney with the AIDS Legal Project in Atlanta who is representing the Storehouse employee. "If Storehouse wins, then more companies will start imposing caps at the time of claims."

LARGE LIFETIME TAB. The impact of the two decisions could go far beyond AIDS, which afflicts only a small percentage of company employees. "The principle can apply to any medical problem that a person has, whether it be cancer or Alzheimer's disease," says Robert L. Liebross, an attorney with the American Association of Retired Persons, which has submitted a brief supporting McGann. "People who believe they are covered will find that they aren't."

That's what happened to McGann. His medical bills far exceed the $7,000 a year he gets in Social Security disability and wages from his part-time job at H&H. And that's just the start: The average lifetime tab for treating AIDS is $75,000, according to the federal government.

The bills have been far higher for Storehouse. Like a growing number of businesses, the home-furnishings company was self-insured, paying employee medical bills directly. But it carried what's known as stop-loss insurance to take care of bills above $25,000. In 1988, Richard Owens, now 37, was diagnosed with AIDS, and the company's health plan shelled out $250,000 for his care.

But in March, 1990, insurer Jefferson-Pilot Corp. proposed a big boost in the company's stop-loss premium. So Storehouse dropped the backup coverage and set a $25,000 lifetime cap on AIDS benefits. The company did spend an additional $90,000 for Owens' treatment, but in October told him the payments would end. Storehouse attorney Richard L. Robbins says the company couldn't afford to continue its plan for all 100 workers if it paid the full cost of AIDS claims.

AIDS PATIENT McGANN: HE RACKED UP $20,000 IN MEDICAL BILLS HE CAN'T PAY

Attorneys for Owens, however, argue that Storehouse violated the federal Employee Retirement Income Security Act (ERISA) of 1974, which bars discrimination against beneficiaries who exercise their rights under a benefit plan. They contend Storehouse singled out particular individuals by writing them out of AIDS benefits after they filed claims.

AIDS-benefit caps would be illegal in most states if the companies were covered by group policies sold by insurance companies, which are regulated by state law. Texas, for example, prohibits policies from setting AIDS coverage limits that differ from those on other diseases. And Georgia bans caps on any disease. "We felt that [allowing caps] was not the right thing to do," says Stanley L. Miller, an assistant director in the Georgia insurance commissioner's office.

REQUEST DENIED. Self-insured companies are exempt from state law but are subject to ERISA. H&H Music, which has been covered by a policy sold by General American Life when McGann first started filing claims, imposed the cap on AIDS after it switched to a self-insured plan. "It's illegal under ERISA to terminate employees to prevent them from having benefits," says Mark Huvard, H&H Music's lawyer. "But we never terminated McGann. We terminated the plan and a self-insured company can offer whatever benefits it wants."

McGann lost the first round in federal court in June, and the U.S. Court of Appeals in New Orleans is expected to decide soon whether to hear his appeal. Like H&H, Storehouse has won its early rounds in court. On Oct. 22, a federal judge ruled that Storehouse had a "legitimate business reason" for capping coverage and was entitled to do so. He denied Owens' request for a temporary restraining order. Owens' lawyer is pursuing the case.

Whatever the courts decide, the question of who should foot the soaring bill for catastrophic illnesses is sure to spark off a lengthy and heated policy debate. To this question, AIDS patients McGann and Owens have an urgent plea: Decide please . . . and soon.

By Susan B. Garland in Washington

ROADWAY MELODIES: NEW YORK'S ECONOMIC DOLDRUMS DON'T FAZE HMV

'HE BRIT INVASION THAT :OULD ROCK TOWER RECORDS

:MV superstores offer the one thing Tower lacks: Customer service

As you walk into the mammoth Tower Records shop in lower Manhattan, music videos blare om overhead televisions. Neon lights ızzle the eyes. The aisles are narrow ıd cluttered with boxes full of records. staffer with a shaved head, earrings, ıd tattoos mans the information desk. e barely looks up as he directs custom- 's with a grunt and a wave.

Now, cut to the world's largest record ıop, the HMV outlet near London's Ox- ɔrd Circus. The atmosphere is muted, ; is the background rock music. Clean ıd spacious, the store has plenty of bow room. No nose rings here.

ELF-SERVICE. Chalk it up to the differ- ıce between polite Britain and brash merica? Perhaps, but U. S. music afi- onados should prepare for a cross-cul- ıral experience. On Nov. 16, Britain's MV Music Ltd. began the U. S. phase of s assault on international markets by ɔening two vast shops in Manhattan. ne, a 40,000-square-foot monster in the ɔrmer Gimbel's store on the Upper East ide, will be the largest record store in orth America. Next year, HMV plans to ɔen another giant outlet in the heart of arvard Square in Cambridge, Mass., ɔllowed by a Los Angeles megastore in arly 1992. After that, says HMV Chair- ıan Stuart McAllister, "we intend to ɔll out shops as quickly as we can," although he has no fixed timetable.

HMV is aiming squarely at a fast-growing niche in music retailing, the warehouse-size store pioneered and still dominated by Sacramento-based Tower Records, which has 64 U. S. and 16 overseas stores. Despite privately held Tower's success, it could be vulnerable. "It is absolutely clear to everyone in the record business that Tower's main problem is service," says Keith Benjamin, retail analyst at Silverberg, Rosenthal & Co., a New York brokerage house. More than a few customers agree. Gripes Tower regular Karen Ortiz: "You can never find someone to help you, never." But, says Tower President Russ Solomon, "HMV is no more service-oriented than we are. This is by nature a self-service industry. How much service can you give a person buying a $15 CD?"

In HMV's judgment, quite a bit. The company says it has staffed its two Manhattan outlets with 320 people, many of whom are musicians or music-school graduates. Moreover, the decor is lavish by industry standards: HMV spent nearly $140 per square foot fitting out the shops, vs. Tower's average of $75 per square foot.

Morning customers are greeted with free coffee as they browse, and each store has 23 checkout counters. In an attempt to cater to the over-30 crowd no longer in tune with the latest musical fad, the chain hangs informative reviews next to some of the latest releases. If the review makes the Cocteau Twins sound interesting, a shopper can sample the band's new release in a listening booth. While most chains just want to sell what's hot, "we really want to help people learn about music," says HMV USA President Tony M. Hirsch.

It's a formula that has worked well in Britain, where HMV's 80 shops have about 14% of the market. The chain is part of the huge Thorn EMI PLC conglomerate, which owns several record labels, including Capitol Records. In recent months, HMV has launched an ambitious international drive, aiming for the 92% of the recorded music market that's outside Britain. The $20 million Tokyo store, HMV's first in Japan, opened the same day as the New York outlets and two weeks after the first HMV in France. At the moment, the expansion is depressing profits. Max Dolding of brokerage firm James Capel & Co. in London figures HMV will make only $12 million pretax this year on sales of about $450 million.

PRICE WARS? HMV executives don't seem worried about entering the U. S. on the eve of a downturn that's gripping New York especially hard. Even when people don't have the scratch for such one-night events as dinner out or the movies, says McAllister, they will still drop $15 on a CD that can be played over and over.

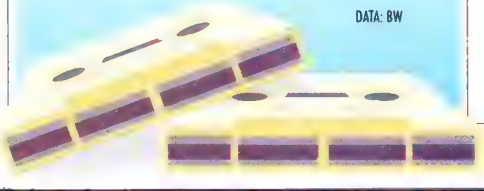
The British chain may get a rude shock when it encounters bargain hunting Americans. Cutthroat price competition is almost nonexistent in Britain. In the U. S., HMV intends to be "competitive," says Hirsch, "but we're not interested in price wars." That could change if rivals sense a threat from HMV and start slashing prices. Even if they don't, HMV may find its supposed advantages being eroded. "If HMV does have any good ideas," says Tower's Solomon, "we'll steal them."

By Mark Maremont in London, with Julie Fingersh in New York

HMV vs. TOWER: THE TALE OF THE TAPE

HMV		TOWER
2	Number of New York stores	2
70,000	Combined square footage	50,000
320	Number of employees	370
46	Number of checkout counters	37

DATA: BW



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CITATION X

In Business This Week

EDITED BY HARRIS COLLINGWOOD

AN AD GIANT'S HARD FALL

▸ First, debt-laden Saatchi & Saatchi came tumbling down. Now, Saatchi's archrival, London-based WPP Group, is taking its lumps. WPP's stock went into a freefall on Nov. 19 after the company said its 1990 pretax profits wouldn't meet expectations. WPP, the world's largest advertising conglomerate, says it will earn $176 million, not the $215 million analysts were estimating. That was enough to drive its New York-traded shares from 15¾ on Nov. 16 to 5½ on Nov. 20.

Martin Sorrell, WPP's chief, blames the poor results on the soft U. S. and British ad markets. The company was also embarrassed by recent disclosures that a subsidiary, Scali McCabe Sloves, had faked a television spot for Volvo. But WPP is suffering most from investors' worries that it may have trouble servicing its $615 million in debt.

GREYHOUND: STILL STUCK IN THE GATE

▸ On Nov. 19, less than six months after filing for bankruptcy protection, the parent of Greyhound Lines filed a reorganization plan that would cut its debt by 27% and issue new notes and a 95% equity stake to its unsecured creditors. The other 5% would be issued to an employee stock-ownership plan. Some creditors have already attacked the proposal's "unrealistic" assumptions and predict that competing plans, including takeover offers, could stymie Greyhound's efforts.

CBS SHARES THE LACK OF WEALTH

▸ CBS, which announced on Nov. 20 that it expects to take a loss in this year's last quarter, plans to share its pain with affiliates. The network pays the affiliates—the local stations that carry CBS programming—about $153 million annually to air the shows. Next year, those payments will fall by about $30 million.

Like other big TV networks, CBS is suffering from softness in the advertising market. Compounding its woes, though, are poor returns on its massive investment in sports. The network, which paid more than $1 billion for a four-year contract with Major League Baseball, lost an estimated $100 million on the game this year. The World Series was CBS's biggest disappointment: Not only did it go the minimum of four games, the contest pitted two teams in relatively small markets.

SANTA FE GOES ITS SEPARATE WAYS

▸ Santa Fe Pacific will split into three companies on Dec. 4, completing a restructuring that began more than three years ago, when a raider came calling. The raider, conglomerate Henley Group, spurred the makeover but ultimately sold its stake after an unsuccessful 16-month struggle to gain control.

The Chicago company will spin off Santa Fe Energy Resources, its oil-and-gas exploration-and-production arm, as well as its 80% holding in Catellus Development, a real estate company. Santa Fe Pacific will retain the Atchison, Topeka & Santa Fe Railway, a coal-and-gold-mining business, and a 46% interest in Santa Fe Pacific Pipelines. The company sold 54% of the pipeline operation to the public in December, 1988.

CHEESE IT, THE COP DECOYS!

Here's a new twist on an old trick. Police departments in suburban Chicago have begun using dummies—11-pound fiberglass mannequins dressed in police uniforms—to slow speeders. Police hope the dummies, stationed on major streets in squad cars, will give speeders cause to pause, or at least slow down. They may have the opposite effect. One speeder recently told a judge he zoomed past a manned patrol car because he thought only a dummy was inside.

The police decoys are the handiwork of Provo (Utah) entrepreneur Stephen Bennett. Now, he's marketing his mannequin, known as Gregory, to the public as an all-purpose human stand-in. The price: $315. Bennett says he has sold more than 3,000 this year, mostly to security-conscious homeowners hoping to deter thieves. But who knows? The next time one of your office-mates is unusually quiet, take a closer look.

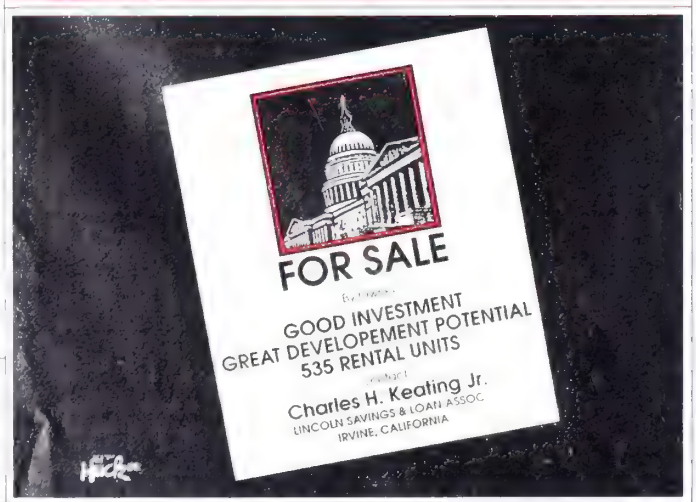
NEW WRINKLES IN THE MANVILLE SETTLEMENT

▸ After months of bargaining, lawyers have crafted a bailout plan for the trust set up to compensate former Manville workers with asbestos-related injuries. The Manville Personal Injury Settlement Trust and workers' lawyers unveiled a deal that frees the trust from tens of thousands of pending suits and sharply curbs payouts to victims.

Under the agreement, the trust would pay the sickest victims first. But they'll only get up to 45% of their settlements until all claims are partially paid. Lawyers' fees would be slashed to 25% of the settlements—still double the amount preferred by the federal judge in Brooklyn who must approve the plan.

TRUMP GETS OFF EASY —THIS TIME

▸ By most accounts, Donald Trump cut a good deal with the holders of bonds issued for his Taj Mahal casino. The cash-strapped real estate investor averted an involuntary bankruptcy filing, and the rate on the bonds was lowered to 12% from 14%. In addition, Trump retains control of the Taj board. But he may have a tougher time with creditors of another distressed casino, the Trump Castle. They became Trump bondholders when he took over Resorts International. They don't like the way he handled the Resorts takeover and may see the Castle negotiations as payback time.



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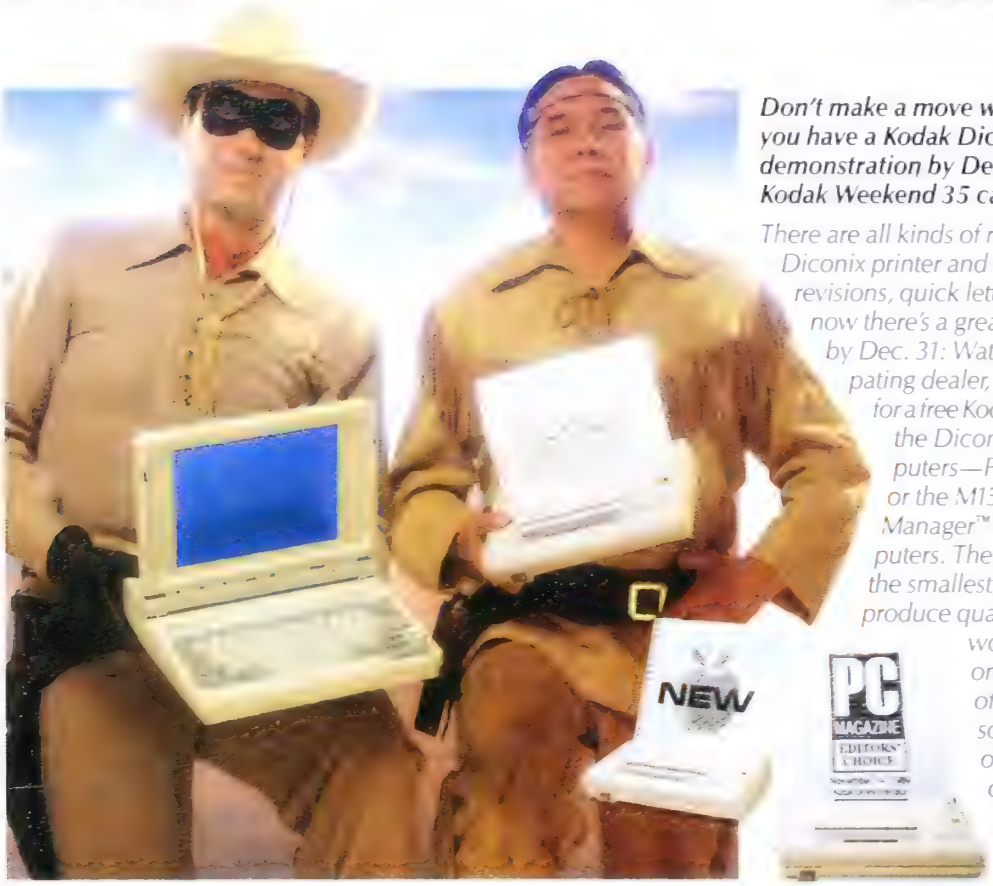

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There are all kinds of reasons to travel with a Kodak Diconix printer and your laptop. Including sudden revisions, quick letters, instant overheads. And now there's a great reason to see a Diconix printer by Dec. 31: Watch a demonstration at a participating dealer, and you'll get a certificate good for a free Kodak Weekend 35 camera! See either the Diconix 150 plus printer for DOS computers—PC Magazine's Editors' Choice—or the M150 plus printer, with Adobe Type Manager™ software, for all Macintosh computers. They're easy to carry—they're two of the smallest, lightest printers in the world—produce quality output on plain paper, and work as well on the desktop as on the road. But the free camera offer ends December 31, 1990, so saddle up today! For the name of your nearest participating dealer in the U.S. or Canada, call 1 800 344-0006.

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EDITED BY STEPHEN H. WILDSTROM

BUSH NEEDS A DOMESTIC AGENDA —BUT HE'S GETTING A DOMESTIC SQUABBLE

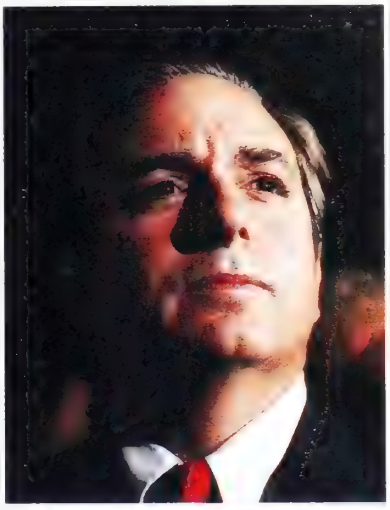
n the Saudi desert, George Bush is searching for a way to drive Saddam Hussein from Kuwait. But back in Washington, Bush's aides are engaged in an equally arid enterprise: search for a domestic policy that can give his Administra- a badly needed second wind.

The U. S. economy is sliding into a recession. Despite the ent budget deal, the deficit sinkhole is deepening. Civil war broken out between Republican conservatives and Bush derates. And to make matters worse, the ite House can't come up with a plan to tore confidence in the economy.

Bush needs an agenda, fast. That realiza- has touched off a furious intraparty ate over January's State of the Union ress. Some Capitol Hill Republicans are ing back on vintage Reaganism. They nt the President to push a dramatic pro- wth program of big new tax cuts and an oss-the-board spending freeze.

ASHY IDEAS. Other conservatives such as using & Urban Development Secretary k F. Kemp and White House domestic- icy adviser James P. Pinkerton are push- a grand strategy built around the ht's hottest buzzword: "empowerment." tead of traditional, centralized pro- ms, empowerment—a new name for ne old ideas—would give recipients wide tude in spending government benefits. example, the poor could get vouchers to help pay the rent, her than being placed in public housing. And parents could tuition vouchers or tax credits so they could send children the schools of their choice. "It's achieving liberal ends with servative means," says one senior White House official.

Pinkerton has called the concept "the New Paradigm," a id-numbing handle for the GOP's plan to demonstrate its ial concern. But at least one top White House strategist, dget Director Richard G. Darman, has nothing but ridicule for this rival attempt at Big Think. In a Nov. 16 speech that cautioned against grasping for splashy new ideas, Darman rhetorically scoffed: "Hey, brother, can you paradigm?"



DARMAN: A MINIMALIST APPROACH

Darman sees Bush as still very much a captive of the deficit. With no money to spend on domestic programs and with no flexibility to cut taxes, all the President can do is put old policy ideas in new packages. The budget director would adopt vastly scaled-down versions of the empowerment strategy and test the ideas in the states and through some federal-pilot projects. Other Bush advisers, including pollster Robert M. Teeter, warn that such a minimalist approach would deal Bush out of the domestic-policy debate for the rest of his term.

WAITING GAME. Chief of Staff John H. Sununu favors another approach. He is convinced that emboldened Democrats will overreach. Rather than promote a spiffy domestic agenda, Sununu reckons that all Bush needs to do is lie in wait. The embattled Sununu says he'd be happy if Congress is stalemated for the next two years. "We want to blunt Democratic initiatives," says one Sununu intimate.

Bush's many-voiced management style often makes the early stages of White House policymaking look chaotic. But what's happening inside the Administration now looks more like midterm disarray than consensus-building. And what's at stake is more than just the State of the Union speech. The President needs policies to snap him out of his swoon and begin healing the rifts in the GOP. At the moment, says former Reagan economic adviser William A. Niskanen, "Bush doesn't have the vaguest idea of what the country needs." That's a harsh judgment from a longtime critic. But even Bush's friends think he must regain control of the domestic agenda if he hopes to revitalize his Presidency.

By Douglas Harbrecht and Howard Gleckman

PITAL WRAPUP

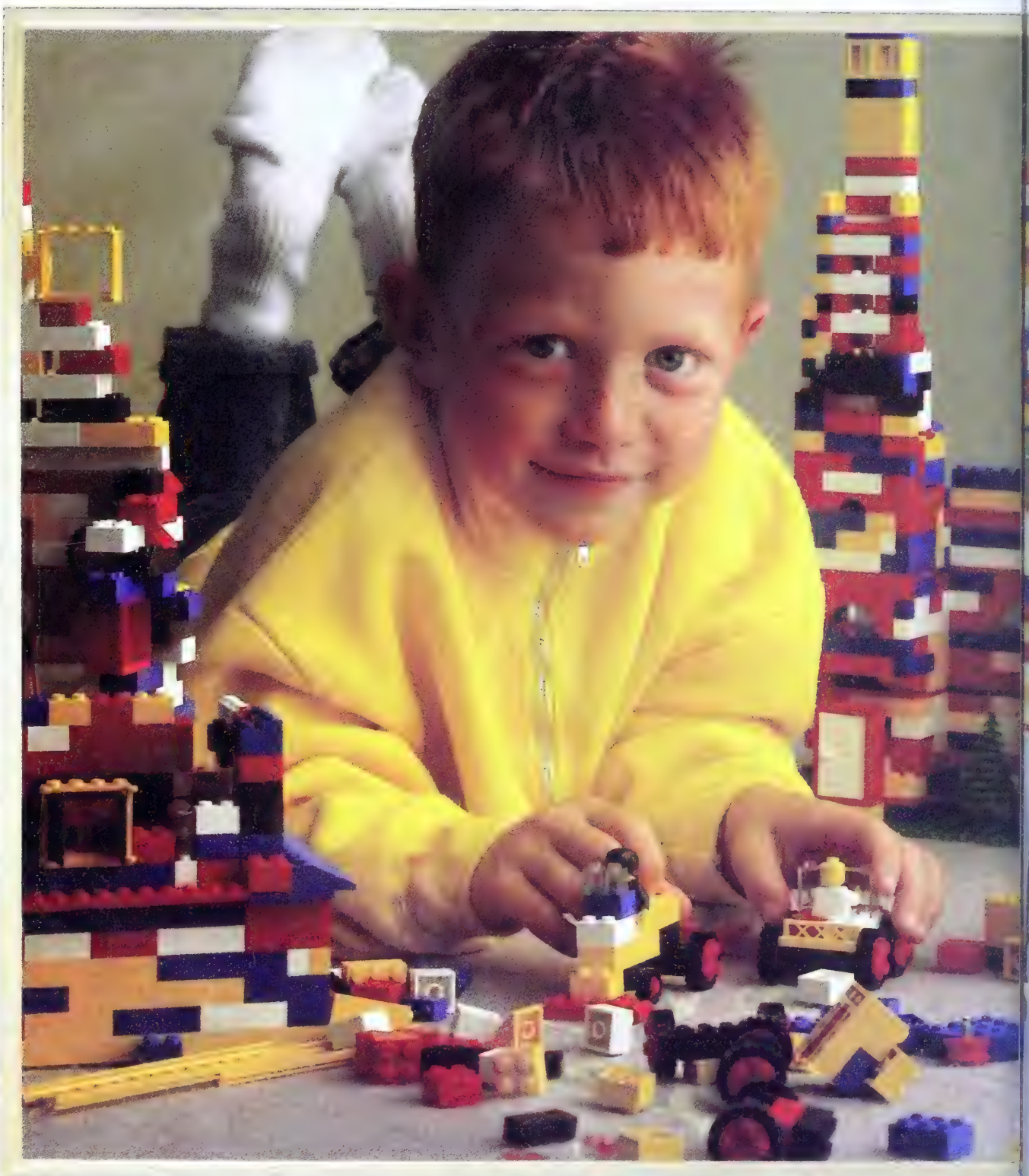
EPUBLICANS

The choice of former drug czar William J. Bennett to head the Republican National Committee may get eorge Bush's formal reelection effort f to an earlier-than-expected start. ennett, who has no experience running campaigns, seems unlikely to ake the RNC the sort of political-strategy powerhouse it was under Chairan Lee Atwater, who is now ill. And hite House Chief of Staff John H. nunu seems disinclined to beef up s political shop. With the 1992 camaign just beginning to stir, the Presint will soon need a heavy-duty politil operation to plan his expected reelection effort. The most likely outcome, GOP pros think, is formation of a Bush '92 "exploratory committee"—a step short of a declaration of candidacy—sometime early next year.

THE HOUSE

Representative Donald Sundquist (R-Tenn.) is gaining ground in his dark-horse campaign to oust Michigan's Guy R. Vander Jagt as chairman of the National Republican Congressional Committee. Sundquist's effort had a rocky start when the White House, angry at an NRCC campaign challenge to Bush's tax policies, urged Vander Jagt's defeat. GOP House members, bridling at the unusual Administration interference in a leadership fight, initially rallied behind the incumbent.

But Vander Jagt has been hurt by disclosures that a large chunk of the $28.5 million raised by the NRCC since 1989 went to consultants rather than to the coffers of GOP House candidates. And members are critical of the tenure of Vander Jagt's co-chairman, Ed Rollins, who has failed to stem the erosion in Republican House ranks. Whatever members' resentment of White House interference, the NRCC's poor performance is taking its toll. "We've had Guy Vander Jagt for 15 years, and all we've done is lose ground," says Representative Robert Livingston (R-La.), who heads the Sundquist effort.



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KOHL IS IN A RACE AGAINST TIME—AND MONEY

With a budget crisis in Bonn, he has to inflict economic pain on the West to rebuild the restive East

As the statesman who orchestrated the reunification of the two Germanys, Helmut Kohl has looked like a shoo-in for a third term as Chancellor. But this grassroots politician isn't taking any chances. In the weeks before the new Germany's first nationwide elections on Dec. 2, Kohl persuaded President Bush and Soviet President Mikhail Gorbachev to campaign with him in his hometown of Ludwigshafen to burnish his reputation as an international leader.

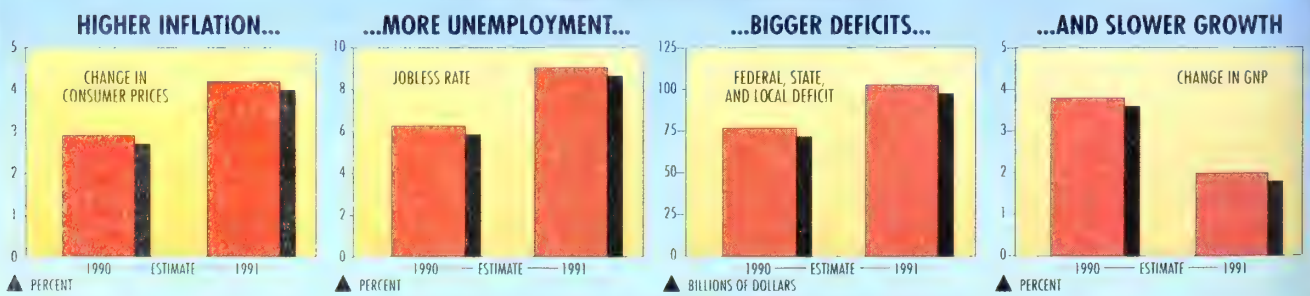
Although Kohl is facing such weighty issues as the Persian Gulf crisis and European monetary union, his international leadership is hardly the burning question right now. Germany faces mountainous deficits and slower growth as the burden of rebuilding the East exceeds the West's grimmest expectations (charts). Kohl will have to embark on a race against time to keep Germany's economy—and his reputation—sound.

STUMPING IN LEIPZIG: A RESURGENCE OF NEO-NAZISM AND RIOTS DEMONSTRATE THE EAST'S SOURING MOOD

Barring a last-minute upset, the Chancellor's Christian Democratic Union (CDU) and its Free Democratic Party (FDP) coalition partners will claim an easy victory in the elections for the Bundestag, Germany's lower house. Among Kohl's first moves will be to ram through tens of billions in government spending cuts to keep Bonn's budget deficits from ballooning out of control. He will also force the West's consumers and businesses, who now pay a stiff 53% top income-tax rate, to shoulder even higher levies, which will probably be presented as increases in excise taxes and user fees.

That prospect hasn't yet touched off

WHAT'S AHEAD FOR KOHL



DATA: GERMAN COUNCIL OF ECONOMIC ADVISERS, INTERNATIONAL MONETARY FUND, UNION BANK OF SWITZERLAND

er resentment. But Kohl's support is e to be tested by increased unrest in East, where a resurgence of neo- zism, and riots in eastern Berlin and pzig, demonstrate the rapidly souring od. The region's unemployment rate n could hit 20%, estimates Union nk of Switzerland economist William Gasser, and pollsters at the Allens- h Institute now figure that half of East's 16 million citizens show symp- ns of depression.

Many West Germans soon may feel rly as depressed. In insisting that the t's reconstruction will have to be dled in a "social market way," Kohl's s are conveying a hidden message t Westerners will have to pay and for the East's rebirth.

Under Kohl's approach, such draconi- measures as massive new layoffs in vatized companies (box) will be avoid- or at least cushioned by generous fare benefits from Bonn. Mind-bog- g amounts of private investment will be required. On top of government lays, some $675 billion "is needed in next 10 years to make up for 40 rs of underinvestment," says Mein- d Miegel, head of a conservative nk tank in Bonn.

RING MARK. Talk of such spending ady has touched off a budget crisis Bonn. With more and more marks ving to bail out the East, Germany's get deficit already exceeds $70 bil- . By 1991, it may well pass $100 bil- , five times what it was in 1989, and equivalent of 5% of overall German ss national product. Consequently, in- st rates have climbed to more than However, Karl H. Schneider, chair- n of Kohl's Council of Economic Ad- rs, insists that a U. S.-style borrow- binge cannot be "a permanent tion" to financing unification.

o reduce deficits to a sustainable 2% GNP, Finance Minister Theo Waigel nits that he will have to lop nearly billion a year off his budget. Waigel ady has floated the idea of trimming l servants' pay raises while subject- their wages to unemployment insur- e for the first time. Planned corpo- tax cuts, a major policy goal before fication, will certainly be delayed. l $20 billion in tax breaks for compa- in western Berlin and along the st's old border with the East are like- o be scrapped.

o close the budget gap, Socialist can- ate for Chancellor Oskar Lafontaine ors higher taxes for the wealthy. n Kohl is edging away from his earli- pledges to avoid any new taxes. "We not avoid talking about an increase in es," he conceded on Nov. 18. Al- dy, Waigel is considering charging ual auto sticker fees for the free obahns. He is mulling over taxing in-

YOU THINK YOUR JOB IS TOUGH, TRY TURNING EAST GERMANY AROUND

When Detlev Rohwedder was recruited last August to rebuild East Germany's huge industrial complex, he plunged in fearlessly. At Dresden-based cameramaker Pentacon, he told 9,000 workers they could no longer sell for $170 cameras that cost $670 to make, relying on state subsidies to make up the difference. They must develop viable new products within six months, or he would shutter the plant.

Playing both liquidator and chief auctioneer, Rohwedder is serving as point man for German Chancellor Helmut Kohl in what could be the biggest corporate turnaround ever. Rohwedder, 58, earned his stripes as a company doctor in the early 1980s by his rescue of German steelmaker Hoesch. Now, as chief of the Treuhandanstalt, the Berlin-based holding company created earlier this year for all East German industrial assets, he has to sell 8,000 ailing companies, which he values at $400 billion. They have 5.5 million employees. Already, the Treuhand has propped the companies with $23 billion in credits and guarantees.

The stakes are enormous. If he succeeds in a rapid sell-off, a mini-boom in the East will stoke the German economy, help mop up the costs of unification, and provide a motor for growth in Europe. If privatization stalls, the East could become an intractable poorhouse as companies go belly up and social problems explode.

SHIRTSLEEVES. Handpicked by Kohl for the $560,000-a-year job, Rohwedder ranks as one of Germany's top CEOs. A shirtsleeves manager who studied in the U. S., he combines a disarming American directness and flexibility with Teutonic toughness and determination. "He loves a huge, risky challenge," says Hoesch board member Hero Brahms.

ROHWEDDER: KOHL GAVE HIM 8,000 COMPANIES TO SELL

To speed deals, Rohwedder has crafted some novel devices, including contracts that allow investors to take control of companies before the final price is determined. So far, he has averaged about $3.3 million a deal, bringing in $670 million for 200 companies. He plans to unload 300 more by yearend for $1 billion. In the largest deal to date, a consortium of West German energy companies, including Bayernwerk, RWE, and PreussenElektra, will buy 75% of the three largest East German energy combines and 51% of 11 smaller companies. On top of a price still to be determined, the consortium will invest $20 billion to upgrade power plants.

WHITE KNIGHT. Rohwedder, an Anglophile who demands all staff members speak a second language, jetted to the U. S. on Nov. 10 in search of foreign buyers. Dow Chemical Co. and Du Pont Co. are among those discussing deals. "We want to impose the burden of foreign competition on this economy," says Rohwedder. He is now fighting an effort by Lufthansa to buy 100% of the East's ailing Interflug. Instead, he wants a foreign white knight, hoping to build a competitor to the state-owned Lufthansa.

Even so, the Treuhand is under fire. "You can't mix the old guard with a few volunteers and properly run 8,000 companies," grumbles one western executive. And unions in the West are clamoring to save jobs by cleaning up companies first and selling them later.

Rohwedder, who likes to spend time perusing history in his library, will have to sacrifice holing up with a good book for awhile. But in tackling the world's largest collection of sick companies, he's making a little history of his own.

By Gail E. Schares in Berlin

dustrial emissions of carbon dioxide.

The prospect of continued high interest rates, increased taxes, and lower subsidies isn't playing well with German business, which has generally supported Kohl. The high rates have pushed the mark's value to a record 1.47 against the dollar, squeezing profits at many companies that plan to be on the front lines of the East's reconstruction. Operating earnings at chemical maker BASF, for instance, plunged 42% in the first nine months of 1990. Daimler Benz CEO Edzard Reuter even questions Germany's future viability as a manufacturer as long as the dollar remains below 1.50 marks. A stronger mark, Reuter says,, will have "far-reaching consequences" for jobs and economic growth.

All is not lost. Kohl's cuts and revenue increases will help Germany boost its investment spending to 25% of GNP from about 20% now. Such a huge upsurge in spending on new factories and capital goods could halt the East's slide, prop up employment, and pay off in 9% GNP growth rates for the East—and 3% more for all Germany—by 1994.

In fact, some companies are alre betting big on that assumption. Günt Röttgering, owner of Münster-ba Hengst Filterwerke, recently bought air-filter division of the East's forme state-owned IFA auto combine. He ma tains that the East's turnaround "v happen faster than many people expe As he bids for his third term, Hel Kohl is hoping for the same thing.

By John Templeman in Bo

ITALY

AS PROFITS PLUNGE, DE BENEDETTI CRIES 'BASTA'

He's streamlining Olivetti to cope with U.S. and Japanese rivals

Carlo De Benedetti, Italy's top dealmaker, is battening down the hatches on his $15 billion empire. Tough times have hit other European industrialists, but De Benedetti is feeling the pressure more than most. His three big strategic holdings—the flagship Olivetti company, car-components maker Valeo, and media giant Mondadori—are all in industries that have been struck by Europe's slowdown.

Envisioning even worse times ahead, the Milan-based De Benedetti is scaling back and stocking up on cash. Earlier this month, he announced that Olivetti, hit by Europe's computer downturn, would cut its work force by 7,000, or 13%, over the next year. De Benedetti also plans to sell off European assets, including stakes in Arnault & Associés, the Paris-based luxury-goods holding company, and his 10% of Société Générale de Belgique, acquired in his failed $1.6 billion takeover attempt in 1988. "There will be a shortage of liquidity in the 1990s," he predicts.

ROUGH GOING. De Benedetti needs to act fast. Once the darlings of European and U. S. institutions, his companies have suddenly lost their glow. While the Milan Borsa dropped 25% this year, the share prices of De Benedetti's companies plunged even more. CIR, his Milan-based holding company, has lost 47% of its value this year. The stock price of Paris-based CERUS, which controls most of De Benedetti's international holdings, has dropped by 75% since January. And Olivetti shares, which traded at $8.30 last year, now fetch only $2.83.

De Benedetti's reputation as Italy's most enterprising businessman rests heavily on whether he can maneuver an Olivetti turnaround. Even Olivetti optimists concede that the next two years will be rough going. As the European office-equipment leader, Olivetti is one of the few computer companies in Europe still making money. But its profits have been declining since 1987, as the company faces brutal competition from U. S. and Japanese rivals.

DE BENEDETTI: THANKS TO LOW DEBT, HE CAN STILL CUT DEALS

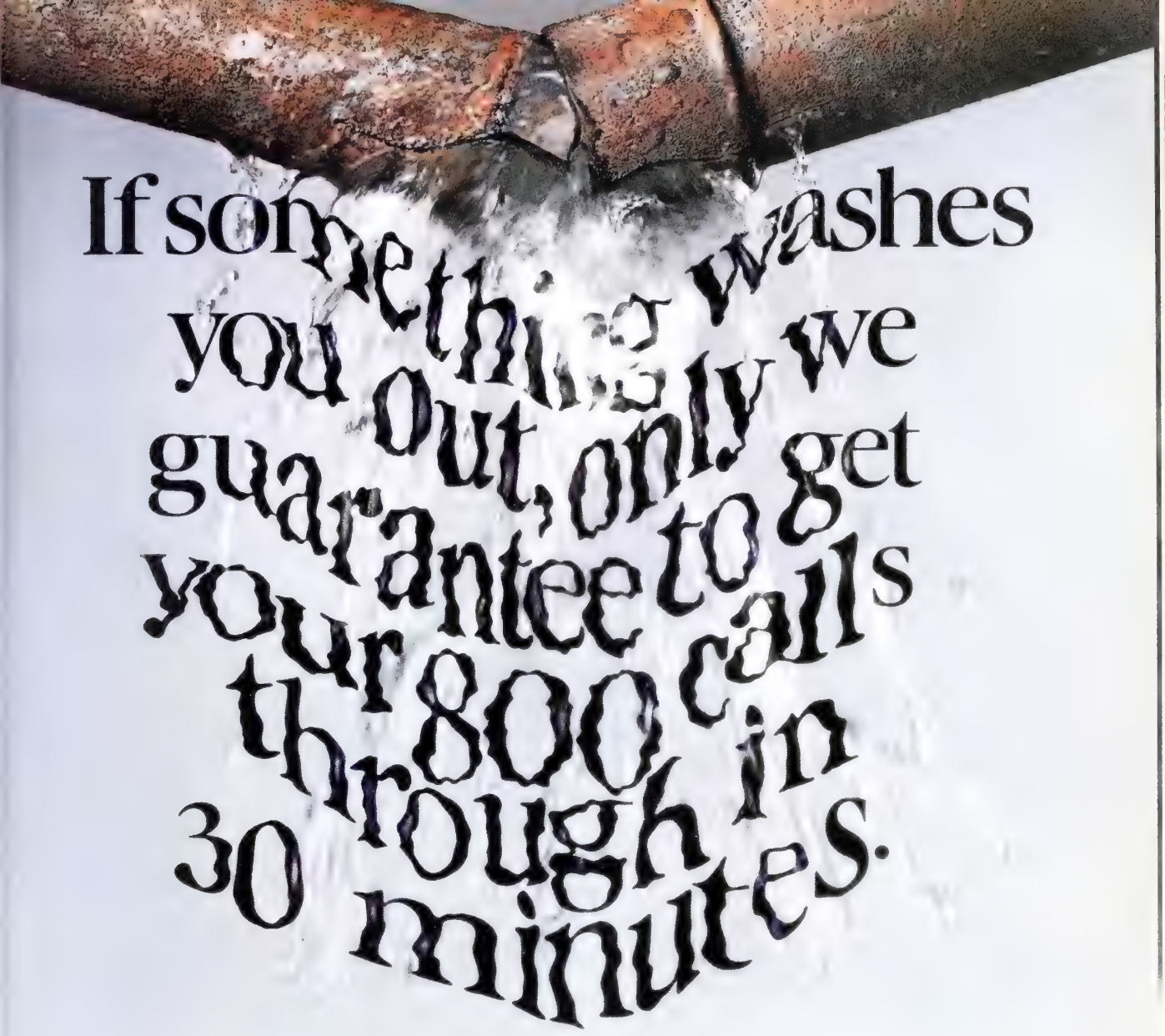
After a long search, Olivetti has been unable to find a healthy European partner. Now, De Benedetti and Olivetti Managing Director Vittorio Cassoni say their company will tough it out alone. France's Groupe Bull, Olivetti's most promising recent prospect, just announced expected losses for this year of more than $511 million and 5,000 layoffs. Philips, a company Olivetti tried to w into a merger as late as last June, nounced up to 55,000 layoffs and an pected $2.4 billion loss for 1990. "C you imagine what would have happe had we done a deal with Philips?" as De Benedetti, who was among the fi to uncover the Dutch giant's hardsh during merger talks.

VITAL LINCHPIN. Despite some key ma agement departures, De Benedetti a Cassoni are betting that a streamlin Olivetti can succeed. They plan to c centrate on two major markets. They appealing to price-sensitive consume by offering low-end personal compute through mass retailers. At the sa time, they're concentrating on speci ized software and services for banks a government agencies. The plan is ready showing results: Revenue fr PCs jumped more than 30% in the fi half of the year, but it has y to boost the bottom line.

If De Benedetti fails to tu Olivetti around, he has mo than his reputation at stak "Olivetti is the problem have to address now," sa De Benedetti aide Corrado P sera. Since American Telepho & Telegraph Co. sold back C vetti shares to De Benede last year, his 43% control of t computer company is by far h single biggest holding. A ro at Olivetti would shake his e tire empire.

But De Benedetti still h maneuvering room. Compar to Italian TV magnate Silv Berlusconi and financier Raul Gardi both of whom have run up mountains debt, De Benedetti looks good. His de is only $750 million, against $3 billion equity. Even now, De Benedetti is doi deals. His Mondadori units recently pa $30 million for a 15% stake in Britain *Independent*, a leading daily newspape De Benedetti is known as the Ingegne back home in Italy, and bets are that h will engineer a comeback.

By John Rossant in Rome, with Jon than B. Levine in Paris



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These Days When A Worker Has An Accident, Eve

The Workers Compensation System was designed to help injured workers get well, and return to work. In most states, it does. In other states, the problems aren't simply big. They're enormous.

And beginning to spread into other states. Right down the line, everybody's starting to feel the effects—from the workers, to their families, to the employers, to the insurers.

The System

Over 75 years ago, when it was created to protect workers from on-the-job injuries, Workers Compensation was based on some well-intentioned and well-received ideas:

To prevent work-related accidents from ever happening.

To give prompt, quality medical attention and equally prompt income benefits.

To rehabilitate injured workers and help them get back to work.

To offer cost stability to the employer.

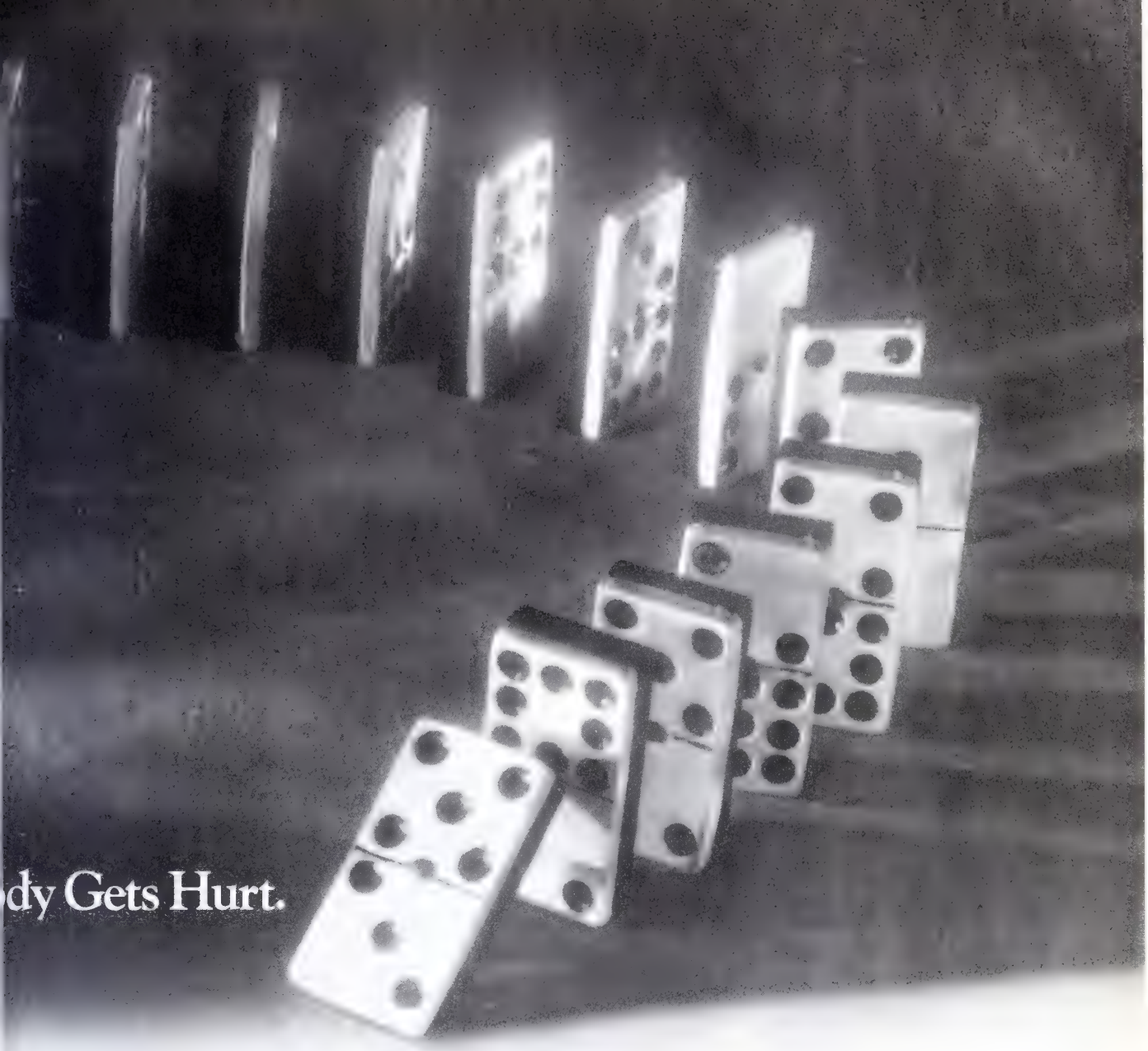
And ultimately, to keep the entire workp productive—the less down-time, the more tir you have to be competitive, and stay competit

The Obstacles

It bears repeating: There are problems. Bi problems, in many states, that need fixing. We also need to strengthen the system so that the problems don't spread to other states.

Problems like unnecessary, time-consum litigation. Soaring claims costs. Underfunded, understaffed state-administered agencies. An on a national level, runaway medical costs.

Fact is, the economies of entire states are



ing—partly because businesses won't relo-
in places where Workers Compensation is
sarray.

For some states, the situation is so critical,
rers have stopped writing Workers Compen-
ɔn Insurance altogether—premiums won't
ı cover losses and expenses.

The Way To Help

What can *you* possibly do to help? You'd be
rised. To help restore and strengthen the
ɛm in your state, you can take two courses of
ɔn.

First: Be aware. Find out what's happening
ɔur state, how you're affected, and what you
do to help. Talk to your insurance company
ɹsiness trade association.

Or two: Share your views by writing to Gary Countryman, President and CEO of Liberty Mutual, 175 Berkeley Street, Boston, MA 02117. We'll help you get in touch with people in your state who can help.

When strong and fit, the Workers Compensation System works hard, and works well. Everyone it touches, it benefits—especially the injured worker.

Which is why, considering all it stands for, we should do everything possible to keep it standing.

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CAN THIS TIGER BURN BRIGHT AGAIN?

Korean companies and their workers have put aside differences to regain ground lost in the late '80s

Yoon Young-Suk couldn't believe his eyes. He had been in the U. S. for two years earning an MBA and returned to Seoul last winter to become president of Daewoo Corp. He knew the once-mighty trading giant was in a slump, but he wasn't prepared for what he found. Sales had grown by a paltry 1.2%, and profits were up mainly because of asset sales. Investment in new technology was sorely lacking and the company seemed adrift. "We'd been edged out in competition," Yoon says. "I decided that without dramatic reforms, our very existence could be at stake." Today, Yoon is furiously scrambling to turn the company around.

In many ways, Daewoo's experience mirrors that of the entire nation of South Korea. After a dizzying two-decade rush from economic fledgling to major global competitor, Korea hit the wall. In the late 1980s, a triple whammy of huge wage hikes, labor unrest, and a soaring currency brought Korea's export miracle to a standstill. Companies that once seemed invincible in such high-profile industries as autos and personal computers stumbled.

The shockwaves rattled through the entire economy. The stock market tumbled, inflation rose, capital grew scarce, and productivity growth slowed. The current-account balance will be negative this year for the first time in four years. What's more, big-business scandals, waffling political leadership, and a growing gap between the haves and have-nots all have alienated many Koreans.

Now, however, the Koreans are trying to get their economic juggernaut back on track. And they are doing so in ways unthinkable just two years ago. Thanks to a combination of a tougher government stand and better management practices, once-violent unions have moderated wage demands that earlier seemed non-negotiable. The big family-dominated business groups, or *chaebol*, have brought in fresh U. S.-trained managerial talent, and private-sector money is shifting from land speculation to productive investment. These moves are fueling hopes that, political disarray notwithstanding, Korea can combine the unwieldy process of democratization with a thriving economy.

REVILED. It's ironic that the *chaebol* could be the economy's salvation. In particular, the big four—Daewoo, Hyundai, Lucky-Goldstar, and Samsung—have long been reviled by Koreans as greedy, too powerful, and even unscrupulous. During the first two years of democratic rule, they came under severe pressure from Seoul. President Roh Tae-Woo's economic team attempted to squeeze their credit lines, shift subsidies to smaller businesses, and, in general, push them out of their central role.

But as the economy sputtered, top bureaucrats and politicians recognized the *chaebol* were too important to eviscerate. Now, under a new economic team installed last spring, the screws have been loosened. The *chaebol* have easier access to credit and new tax incentives for corporate investment. Likewise, they are benefiting from revived export promotion and Seoul's determination to hold down the value of the won.

THE NEW VIGOR OF THE *CHAEBOL*

Long reviled as too powerful and greedy, the family-dominated groups may be Korea's best chance to catch up in the global economy

ONCE-RADICAL UNIONS HAVE MELLOWED

DAEWOO: YOON IS PUTTING U.S. TRAINING TO WORK

HYUNDAI: A CHEAPER WON WILL HELP ELANTRA SALES

The results are beginning to show. rikes are down by 80% in 1990 so far . the same period last year. Average age gains have fallen to 18%, from %. That leaves more money to spend R&D and capital equipment. As a re-lt, Korea's gross national product is owing by 8% this year, up from 6.7% st year. And exports have stopped eir decline, with the won weaker ainst the dollar.

Some say Koreans needed a shock to rce them to modernize companies that cked world-class managerial depth and cused on cheap labor rather than high chnology. "What they're going rough now is what the Japanese com-nies went through about 15 years o," says Phillip D. Grub of George ashington University. "They are bring-g in many well-qualified Koreans from e U. S. who are more attuned to global mpetition."

Daewoo's Yoon is one of those new anagers. After successful but difficult ints running Daewoo Heavy Industries d. and troubled Daewoo Shipbuilding Heavy Machinery Ltd., Yoon went to e U. S. to study. He returned with an BA from the University of California-n Francisco and was assigned to run aewoo Corp., the trading company arm of the Daewoo group.

R: INVESTING IN HIGHER TECHNOLOGY

Trying out some of his American training, Yoon grabbed the reins and started shaking. He vaporized several layers of management by zapping one-third of the company's middle-echelon positions. He directly phones managers several ranks below him rather than going through the time-wasting, traditional hierarchy. And he "encourages" even the lowest-ranking employees to stay after hours to help solve problems.

Hyundai Group, another of Korea's powerful but limping *chaebol,* is going through a similar retooling. Just two years ago, the group was hit hard by labor strife and a stronger won. Now, things are looking up. In late October, Hyundai Motor Co. introduced a brand-new model called the Elantra. Aimed at the market in between Hyundai's Excel and Sonata models, it is a fuel-efficient but powerful car with a price tag of about $10,000 in the U. S. Already, though, exports of its mainstay cars are up, thanks to the cheaper won, and overall Hyundai sales are running 25% ahead of last year.

Underlying Hyundai's comeback is a remarkable cooling of labor troubles at its Ulsan manufacturing complex. Hyundai Motor's union, with 20,000 members, was the country's largest and most militant, but its leadership has mellowed. After arduous contract negotiations earlier this year, the union settled for a 14% raise, vs. 25% last year. One reason is smart management. Breaking with tradition, for example, Hyundai Motor Chairman Chung Se Yung and his managers invited union leaders to a weekend retreat for face-to-face talks.

Lucky-Goldstar Group, the third-largest *chaebol,* is the testing ground for yet another attempt at modernization. Once the most paternalistic and authoritarian of managers, Chairman Koo Cha-Kyung and his brothers heeded advice from McKinsey & Co. early this year and handed management over to nonfamily professionals. In a stroke, the $22 billion-a-year group was decentralized, with heads of each affiliate accorded full authority. "Until now, Chairman Koo told the units what to do, but that's no longer appropriate," says Byun Kyu-Chill, president of Lucky Goldstar International, the group's trading arm.

For the *chaebol*'s efforts to bear full fruit, Korea will have to get its fractious political house in order. The country's politicians are only now beginning to learn the art of consensus-building. After months of hard bargaining, including a debilitating boycott of the National Assembly by opposition leader Kim Dae-Jung, the ruling and opposition parties have finally agreed to a timetable for local elections, removing a major political uncertainty.

UNIFICATION. Korea is also learning how to act on the international stage. Korean executives are now pursuing investments in China and the Soviet Union, where there is little Japanese competition. President Roh is planning to visit the Soviet Union in mid-December with a rumored "gift" of as much as $3 billion in trade credits. Korea's trade with these two countries, now about $4 billion, could reach $10 billion a year within three years, says a Daewoo executive.

Rapprochement with North Korea is also buoying spirits in the South. Even without actual reunification, a North-South thaw would have huge economic benefits. Reduced defense expenditures would put millions in South Korea's coffers, while access to cheap North Korean labor and resources would be a boon to the *chaebol.* For all these reasons, the Korean tiger may be able to catch a second wind.

By Laxmi Nakarmi and Robert Neff in Seoul

EDITED BY STANLEY RED

WHILE THE GUNS ARE SILENT IN THE GULF, MONEY TALKS

While the U. S. ratchets up military pressure against Iraq, Washington and its allies are also wielding financial clout in the contest for the future of the region. Countries that back the U. S. and Saudi Arabia against Saddam Hussein are receiving ample *baksheesh*, or cash rewards. Those who don't risk severe economic punishment.

A multinational body, known as the Gulf Crisis Financial Coordination Group, has already paid out $3 billion of $13 billion pledged to recompense states such as Egypt, Turkey, and Syria that are helping the gulf effort or have been hurt by the embargo against Iraq. While U. S. Treasury Under Secretary for International Affairs David C. Mulford chairs the group, the Saudis have a big say over who gets the money. That's because, with $4 billion in pledges, they are the leading donors, while the U. S. is putting up no cash. The exiled Kuwaiti government and the United Arab Emirates are contributing $4.4 billion, the European Community $2.2 billion, and Japan $2 billion. Actual disbursements are being made by individual countries.

THOUSANDS OF EGYPTIANS HAVE FLED IRAQ

CASHING IN. For the Saudis, the alliance against Iraq provides an opportunity to strengthen their regional influence by using money to cement ties with key Arab states. Egypt, the biggest Arab country, is slated to get nearly $4 billion for sending at least 20,000 troops to Saudi Arabia. Egypt will also be able to write off $6.7 billion in military debt owed the U. S. and $7 billion in loans from the gulf states. Syria and Morocco, which have sent troops, are also likely to get a big chunk of aid from the Saudis.

Turkey, whose cooperation in the embargo is crucial, is also cashing in. So far, the Turks have collected only $300 million of nearly $3 billion pledged. But they are about to get $1 billion worth of oil from Saudi Arabia.

By contrast, countries that haven't lined up against Iraq are getting stiffed by the Saudis. One target is Jordan's Ki Hussein, who was slow to halt trade with Baghdad. But t U. S., which values the king's moderate influence in the gion, wants him bailed out of a dangerous economic cris Mulford says Jordan is "deserving of support," but he a knowledges that "the gulf states are very unhappy with Jo dan for not bearing a greater share of the burden."

MIXED MOTIVES. Jordan has lost its export markets in Iraq a Kuwait, and 200,000 Jordanians have returned from Kuwa swamping schools and services. The Saudis have worsened t blow by halting imports from Jordan and oil supplies to Jo dan. That policy also punishes the Pale tinians in the West Bank, who former exported most of their produce to t gulf states through Jordan. In additio the Saudis have halted aid that th used to channel to the West Bank a Gaza through the Palestine Liberati Organization. The Saudis have also far refused to help Eastern Europe countries.

For their largesse to Cairo, the Saud motives may be mixed. A Saudi offici says his country wants to fund a Wor Bank program to retrain hundreds thousands of Egyptians who fled K wait and Iraq. While that seems generous, the Saudi aim is recruit Egyptians to replace the roughly 500,000 Yemeni wor ers sent home by Saudi Arabia to punish Yemen's neutrality the gulf crisis. "Arab pledges are not always what the seem," says Hazem Beblawi, chairman of the Export Develo ment Bank of Egypt.

The main U. S. aim in the gulf is to help stabilize the Midd East. Payments by the Saudis and Kuwaitis are helping ke the region's economy afloat. But efforts to punish fence-sitte such as Jordan and Yemen may also stir up future trouble

By Mike McNamee and Bill Javetski in Washington, with Ma lyn Achiron in Cairo and bureau reports

GLOBAL WRAPUP

BRITAIN

The deeply divided Conservative Party is facing the prospect of life without Margaret Thatcher as Prime Minister—and without a clear political vision to replace her radical free-market ideology. Thatcher failed to win a decisive victory over challenger Michael Heseltine in a Nov. 20 vote for party leadership. Barring a decision to step aside in favor of a compromise candidate, she will face Heseltine and perhaps others in a Nov. 27 runoff.

Even if Thatcher scrapes through, the price of party unity will be a dramatic slowdown in her drive for free-market solutions for issues from health care to education. Whoever wins will also have to regain ground lost to the Labor Party, now leading in the polls. While Heseltine supported much of Thatcher's agenda in the '80s, he now favors more government support for programs such as industrial research and development. Any new Tory leader, moreover, will be pro-European, while even Thatcher, if she stays on, will have to tone down her opposition to a united Europe.

EUROPE

New peacekeeping institutions set up by the Conference on Security & Cooperation in Europe (CSCE) aren't going to overshadow the NATO alliance, as Washington had feared, any time soon. At the CSCE's Nov. 19-21 summit in Paris, the 34-nation group agreed to establish a secretariat in Prague, with only a small staff, and a Conflict Prevention Center in Vienna.

Soviet President Mikhail Gorbachev said he hopes the center will become "a kind of all-European Security Council," with power to "extinguish the sparks" of conflicts. But its initial task will simply be to monitor compliance with the treaty to cut nonnuclear forces that members of NATO and the collapsing Warsaw Pact signed in Paris. That mandate appears to exclude any CSCE role in hot spots such as Yugoslavia, which is in danger of breaking up.

BusinessWeek

HOLIDAY GIVING

SPECIAL EDITORIAL SECTION OF BUSINESS WEEK
DECEMBER 3, 1990

MY FAVORITE GIFT

Surprising memories from Michael Caine, Ted Kennedy, Cheryl Tiegs and a host of movers and shakers

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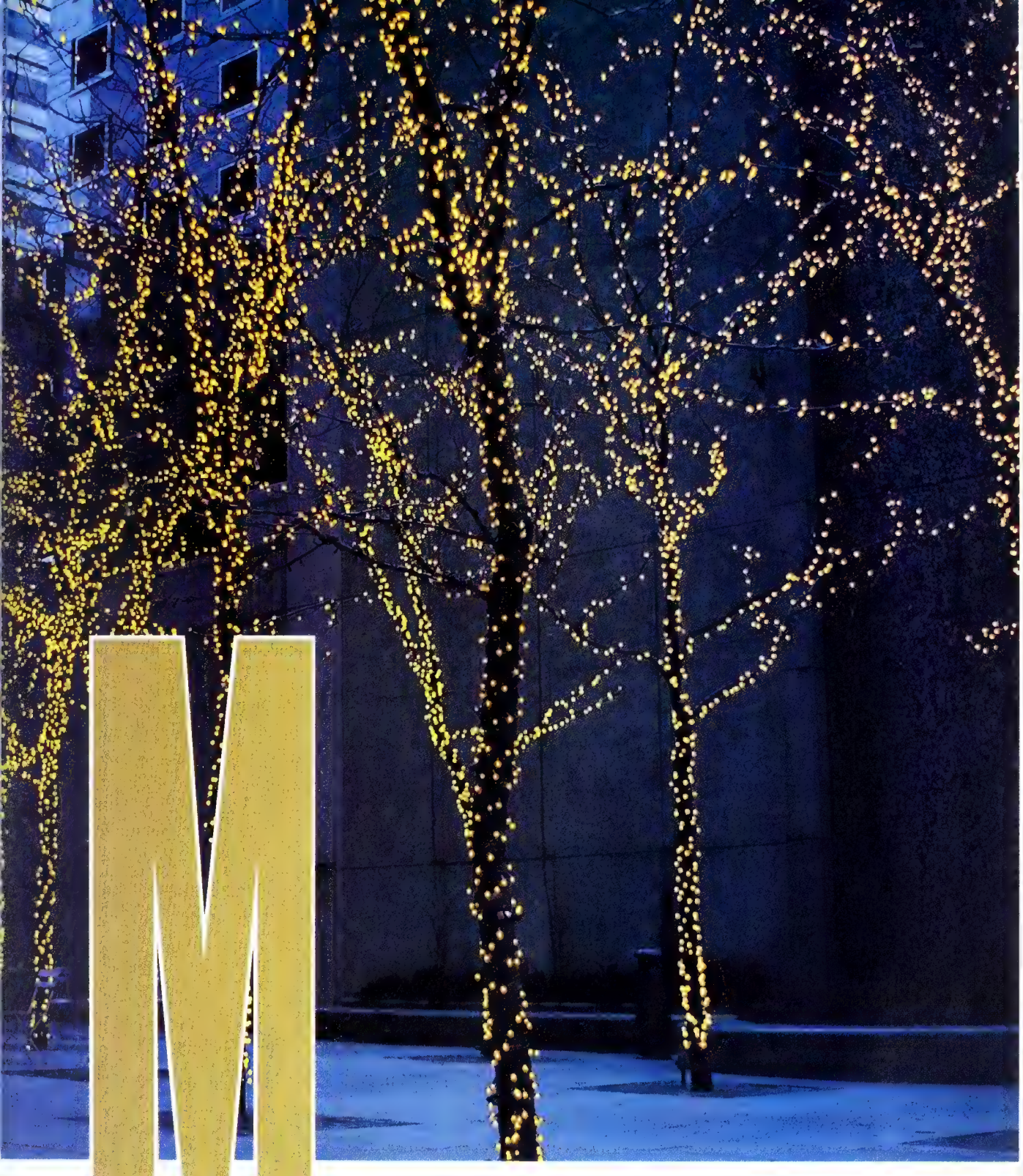

May your holidays be merry and bright
and may the spirit of giving stay with you
throughout the new year.

BusinessWeek

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FROM THE EDITOR

THE HOLIDAYS ARE SUPPOSED TO BE A TIME FOR giving—and we usually give till it hurts. First, there's the anguish of compiling the gift list: You've always bought presents for your second cousin's children, but they haven't sent even a card since Jimmy Carter was President. What about your neighbor, who caught you red-faced last year when he unexpectedly arrived on your doorstep with a fifth of 20-year-old Scotch and an oversize poinsettia? And how about your spouse, who magnanimously advises "Don't get me anything," but always seems to look disappointed after the last box is unwrapped?

But deciding who gets gifts is just a minor skirmish on the way to the real war of choosing what to buy, fought on the bloodstained battlefields of department-store lingerie and tie counters. Admit it: Do you really know anyone who needs—or, more importantly, wants—another deluxe sandwich griller or toolbox organizer? Do you really want to spend Christmas Eve with two hundred other hapless souls sampling perfumes and after-shave lotions in a telephone-booth-size space?

We at BUSINESS WEEK are firm believers that everything about the holiday season should be fun—including the shopping. This year's *Holiday Giving* section intends to ease the pain of choosing presents by offering hundreds of gift ideas, from the inexpensive to the extravagant, from the serious to the whimsical, from the conservative to the offbeat. And we have surrounded these suggestions with insightful, informative, and amusing articles to help inspire you in your quests.

For your favorite gourmet or gourmand, browse through "Edible Express," writer Richard Nalley's cupboard full of mail-order delectables, or "A Sprited Idea," Rob Ryan's enticing guide to fine brandies. For the hacker, Peter Finch's "Duffers' Delights" sorts out the best—and worst—of this season's golf paraphernalia. Gifts you won't see in every other shopping-mall boutique can be found in Glenn Harrell's "The Fine Art of Shopping," with samples from the shops and catalogs of the nation's most renowned museums. For the workaholic, read Thomas Hine's "Gifts That Work," featuring elegant accessories for the stylish executive suite. For those who'd rather do anything *but* work, try one of the distracting playthings for grown-ups in Joe Queenan's "For Adults Only."

When you're ready to take a break, we've left you with some enjoyable seasonal reading to keep your mind off your aching feet: "Party Politics," unflinching advice from Judith Martin, the nationally syndicated Miss Manners, on how to steel oneself for (shudder) the office Christmas party; "Holidays from Hell," comedian Richard Lewis' quintessentially neurotic slant on the season; and "My Favorite Gift," a glimpse under the trees of the rich and famous.

And when you're hauling the bags of shredded wrapping paper out to the trash heap, take comfort in knowing that there are 364 days left to shop for next year.

Cynthia Green

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By Joe Queenan

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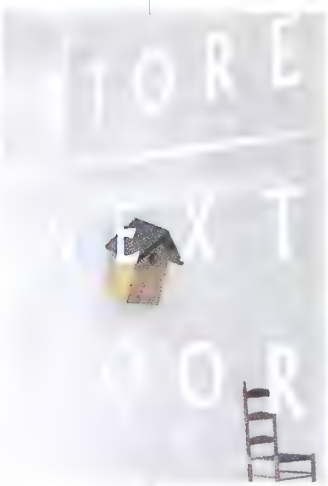

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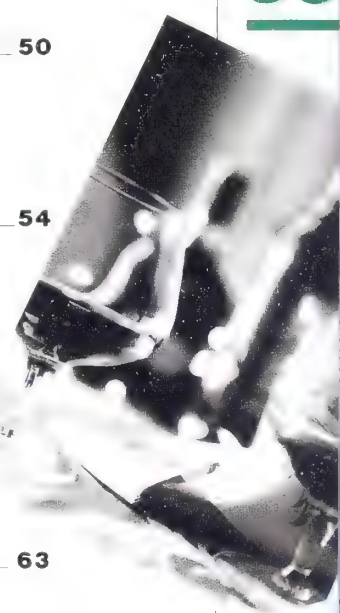

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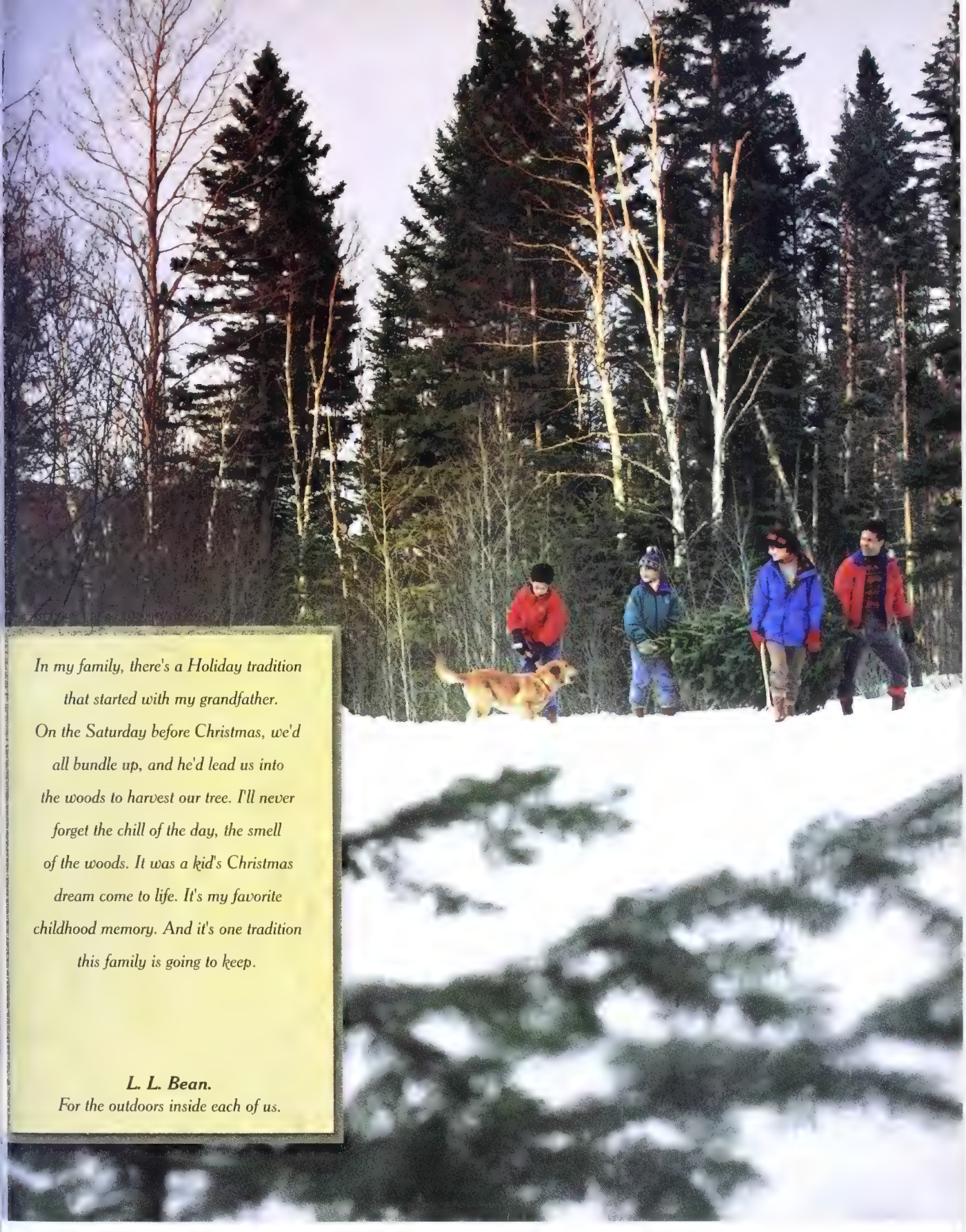

In my family, there's a Holiday tradition that started with my grandfather. On the Saturday before Christmas, we'd all bundle up, and he'd lead us into the woods to harvest our tree. I'll never forget the chill of the day, the smell of the woods. It was a kid's Christmas dream come to life. It's my favorite childhood memory. And it's one tradition this family is going to keep.

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MY FAVORITE GIFT

THE GHOST OF CHRISTMAS PAST CONJURES SOME SURPRISING MEMORIES FOR THESE MOVERS AND SHAKERS

INTERVIEWS BY MARION LONG

EVERY HOLIDAY SEASON, A COUPLE OF presents immediately get shoved into a drawer or the back of a closet, never to be seen again. Others hold interest for a few weeks, even a few months, then break, or wear out, or just start gathering dust from lack of use. But sometimes a special gift emerges from the crumpled wrapping paper and bedraggled ribbon—a gift that is somehow so right, or is given with such great emotion, that it takes on almost mythic properties.

We asked notables from business and industry, entertainment and the arts, sports and government, to search their memories for one gift that stands out as their favorite. For a group that has received hundreds of lavish items over the years, the question "What was the best gift you ever received?" elicited some surprising, touching, and humorous answers.

Michael Caine

MICHAEL CAINE

Actor

A trip to France. It was the first time I'd gone abroad when I wasn't in the army; I was 23, and I hadn't worked in six months. I was very depressed because my father had just died. I spent time in Paris, which I loved, and got free of my depression. And the day I got back, my agent called me and said, "I have a part for you in television," which I had never done before. It was a small speaking role in Jean Anouilh's play *The Lark*, about Joan of Arc. I played a guard, had a small speaking part, and that was my first TV job.

LARRY BIRD

Basketball player

When I was growing up, my mother and father always worked hard to provide the necessities for me and my five brothers and sisters, but at Christmastime there weren't always that many gifts to go around. So when I received a basketball for Christmas when I was 10, I thought it was the greatest thing I had ever seen in my life. I took it everywhere with me, dribbling it constantly, in the wintertime as much as in the summer. When it got soaking wet, I would put it by the wood stove to dry out and try and put some

Paloma Picasso

Quincy Jones

bounce back into it. One time, I left it by the stove too long and the rubber surface got all mottled, and from that time on the ball would bounce every which way. I never had enough money to buy a new one, so I just kept using that wrinkled-up ball. It still went through the basket fine, and I could continue to practice for hours and hours all by myself. I guess it was a pretty significant gift in my life.

PALOMA PICASSO

Artist, jewelry designer

My dog, Martha. I received her as a wedding gift from my brother. She is adorable and is really a wonderful companion. She lives with me at my home in Paris. She is a gift of life from someone I love very much.

R. DAVID THOMAS

Founder, Wendy's International

I was given a free vacation trip by Harlan Sanders back in 1960. He asked if I wanted to share the driving on a car trip to Miami—but it wasn't just driving 23 straight hours. The Colonel stopped on the way at as many of his restaurants as he possibly could, in small towns and cities virtually all the way up and down Kentucky, Tennessee, Georgia, the Carolinas, and Florida. All along the way, he shared his business philosophies, how to work with franchise owners, how to focus on quality of operations—all kinds of information that really shaped my own approach to doing business.

QUINCY JONES

Composer, arranger, producer

Bessie Smith's original 1927 contract with Columbia Records. It's a contract for one of Bessie's greatest recordings, *Backwater Blues*, and it's fascinating for me to look at her signature on that document. It's also interesting to see what horrible terms Columbia was imposing upon black artists in those days.

TED KENNEDY

U. S. Senator

The desk that was used by my father when he was ambassador to the Court of St. James, and then was used by my brother John in his Senate office, and by my brother Robert in his Senate office, and is now with me in my Capitol office. It is a continuing inspiration to me; it provides a presence of my father and my brothers in my office which sustains me in many ways.

PETER JENNINGS

Network anchorman

A St. Christopher's medal, which my father, who was a world traveler, kept in his briefcase. I've never seen one before like it: It's got a clasp on it so that it literally fits onto the inside of a briefcase. He gave it to me more than 30 years ago, and I still keep it in my much-battered briefcase. I'm not even a Catholic, I'm an Episcopalian, but the medal means so much to me because it came from my father, and he was a journalist, too. If you're going to do much traveling, you might as well identify with someone, and who better than St. Christopher?

MARTIN SHORT

Comedian

On Christmas of 1965, my brother Michael gave me the record album *Frank Sinatra Live at the Sands Hotel*, a double-record set. It was received somewhat dubiously at first, but once I heard that record, I knew, I just knew, that I wanted (1) to be Frank Sinatra; and (2) to be in show business. This is Frank Sinatra Sr., by the way. I think that Sinatra on that album achieved a kind of a pinnacle of a wonderful performer doing what he did very well, and it triggered something within me—it cemented this idea that being a performer was what I wanted to do. Even later on in life, when I would be with friends, the album became a kind of coined phrase: When a joke didn't go over that well, I would say, "It's not

Martin Short

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Donna Karan

Jane Maas

Richard Darman

Peter Ueberroth

like we're at the Sands Hotel here, guys. It's just a joke among friends." My obsession with this record meant that at a time when the entire world was protesting the war in Vietnam, I was up in my attic in Hamilton, Ontario, singing, "Come fly with me/Let's fly down to Per—ruuu . . . ."

DONNA KARAN

Fashion designer

A plaster hand. My husband, Stephan Weiss, is a sculptor, and it was his hand in plaster, which he made for me. It meant so much because it was like him reaching out to me, helping me.

JANE MAAS

Advertising executive

On one of our first dates, my husband—an architect with impeccable taste—took me to a bullfight in Tijuana, and shuddered at those hideously ugly little ceramic bulls they were selling there. He said, "Aren't those the ugliest, most touristy things you've ever seen?" And then he took a second look at my face and realized that Janey Brown from Jersey City desperately wanted one of those bulls. And shuddering, just shuddering, he bought the bull, and handed it to me, and said, "Okay, how would you like to get married—no bull?" Thirty-one years later, we still have that bull. And he still shudders when he looks at it.

BOB KING

Sports manager and promoter

The gift that has had the most profound effect on me was one my mother gave me the day after my father died, Pearl Harbor Day, Dec. 7, 1941. It was her Bible, which her mother had passed down to her, and with the Bible she gave me a message: Always believe in yourself and have faith in God, and there will be no end to your limits. That Bible is with me every day—I keep it sitting on my desk.

CHERYL TIEGS

Model, businesswoman

A 16-volume set of the Oxford English Dictionary. All the volumes were separately wrapped and placed under the Christmas tree. And after I opened them all up, it was overwhelming, being surrounded by all of those beautiful books. I love, love, love reading. You know how people ask, "If you weren't in the business you're in now, what would you be?" I would have loved to have been a librarian. Whenever I need to calm myself down or have any time to myself, I close the door, sit quietly, and read those books. I refer to them all the time, and I'm thrilled to have them. I have them displayed in my bedroom.

RICHARD DARMAN

Director, Office of Management & Budget

Ted Williams gave me an autographed baseball last year on opening day. I'd been a fan of his since I was a child growing up in Boston. When he came to opening day—he's a friend of President Bush—the President knew I hero-worshiped Ted Williams, and he arranged for me to have breakfast with him and then go to the game with him. It was a kid's dream come true. I have the autographed baseball displayed in a little case in my OMB office.

PETER UEBERROTH

Businessman

The American Friends of the Hebrew University once presented me with the Scopus Award, for being part of their fund-raising efforts. It was quite an honor for me to receive, so when the university wanted to present me with a gift as a token of their appreciation, I told them it was unnecessary. Three years passed. Much to my surprise, the university had a 6-foot-tall bronze statue delivered, unannounced, to my home. Today the statue rests outside my front door, and each day, I'm reminded of the art form of giving and saying thank you.

BRIAN GRAZER

Film producer and co-chairman, Imagine Films Entertainment

A 1952 classic bicycle, exactly like Pee Wee Herman's. It's in mint condition, with the little light and the buzzer and big whitewall tires. I live at the beach, and I ride it around all the time. When-

"A 16-VOLUME SET OF THE OXFORD ENGLISH DICTIONARY, WRAPPED SEPARATELY AND PLACED UNDER THE TREE"

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Our VIPs also recounted distinctive duds from holidays gone by:

"A friend sent me a baby alligator—the real thing, a live one."
QUINCY JONES

"The worst gift I ever received was from Leona Helmsley, when I was serving as her advertising agency. It was a music box that played I'm Just Wild About Harry, *and she liked to have it played in her honor. I would arrive at the office and hear it playing and be afraid to go in, because I knew Leona was there, ready to attack."*
JANE MAAS

"My mother-in-law gave me a marble paperweight, on which it said: 'All Who Enter Here Give Pleasure . . . Some By Merely Arriving, Others By Leaving.' My wife was outraged. I keep it displayed in a guest bathroom."
PETER JENNINGS

"Every year, my wife's grandfather gives me a polyester jumpsuit in a different color. He's a great guy, but he picks out clothes for a 75-year-old man. He expects I'll wear them with cowboy boots."
BRIAN GRAZER

"[Comedian] Eugene Levy once gave me an incredibly elaborate candelabrum that immediately struck me as being the worst gift I'd ever received. I bring the thing out as a special decoration every Christmas, and the thought occurs to me again."
MARTIN SHORT

ever I ride down the Pacific Coast Highway, there's always a bunch of bikers with $25,000 Harleys yelling, "Cool bike there!" It's almost like having a Ferrari: Girls actually pay attention to me when I'm on it.

BILL GATES

Chairman, Microsoft

The Mothers' Club at my school, Lakeside High in Seattle, gave me computer time on a General Electric time-sharing system. The teachers were afraid they didn't know how to use it, and since I had free time because I didn't have math class (I had read the high school math texts already), I got into using it. This started my fascination, which was hardcore for those first few years, with computers. If that hadn't happened, I doubt I would be in computers. It was $3,000 of time, raised through their annual rummage sale.

BO DIDDLEY

Musician

A set of very beautiful ruby, diamond, and gold cuff links given to me by the Rolling Stones. We have played all over the world on tour together—in Europe, Japan, the U. S. And besides the cuff links being very beautiful in themselves, it was important for me to know that they appreciate my music and have considered me a personal friend throughout the years.

IVAN LENDL

Tennis player

In 1988 a dog that I was very fond of died, and I was very upset. My wife, Samantha, for Christmas that year gave me a German shepherd named Todd. Todd is a wonderful dog, and he was the best present I can remember getting in a very long time. After his arrival, I began a new pastime, breeding German shepherds, which has given me a great deal of pleasure.

LOUISE McNAMEE

Advertising executive

A gift that has changed my life a lot is the ranch in Bozeman, Mont., that my husband, Tom, gave to me. It's a working ranch of 4,000 acres, and there are lots of horses—I just love it. It is a great help in decompressing. It's a counterpoint to New York—it is so different—and I need that. It has changed my life in some less-than-ideal ways, too: much more time spent on airplanes. But it's worth it.

DICK CLARK

Music and television producer and personality

A number of years ago one of my sons gave me a triptych picture frame—three attached frames—and in it he had put a picture of my great-grandfather, my grandfather, and my father. I was so taken with it, I went and got another triptych frame and I put a photo of myself in it along with my two sons. And whenever I look at them it does something special to me. It's the men of the family: I've traced the men of the family from my great-grandfather down through my sons.

SIDNEY SHELDON

Best-selling novelist

Without any doubt, my most memorable gift was the key to the city of my native Chicago, which I received—or, I should say, almost did not receive—from then-Mayor Harold Washington. I was told that I was to receive the key to the city at a public ceremony set for nine in the morning. Soon I heard the event was going to be postponed to 10 o'clock, then I was told it looked more like it would be noon. Finally the mayor arrived sometime between three and four in the afternoon, apologizing profusely. He told me that the night before they had received death threats against his [the mayor's] life which they were taking very seriously, and that they had needed the time to get their security forces together for this public ceremony. He said to me, "You know, Sidney, I'm even more concerned for your safety than I am for my own." I was very touched. I only wished he hadn't told me all of this before the event. The whole ceremony was a bit strained for me, to say the least—trying to keep a big smile on my face while waiting for gunfire to come winging out of some corner.

'A 1952 CLASSIC BICYCLE, EXACTLY LIKE PEE WEE HERMAN'S, IN MINT CONDITION'

Like The Rarest Wines, These Cigars Do Not Come Along Every Year.

If you have searched for finer and finer ıremium cigars through the years, you are ıot alone.

The same quest has been known to take nen across oceans as well as continents and ıas moved certain connoisseurs to purchase ılantations all their own.

It has also consumed the passions of the men f Macanudo for more than a century.

In an age of machines, the men of Macanudo ıave gone on making their cigars step by step by ıand, always with the finest tobaccos, always n the pursuit of perfection.

Without question, their crowning achievements re Macanudo Vintage Cabinet Selection cigars.

Vintage years are as rare for fine cigars as they re for fine wines, for only the richest of harvests an yield some tobacco leaves whose qualities urpass the grades that we demand for other Macanudo cigars.

Our long, fine filler leaves are grown in the Caribbean. Our dark, supple binder leaves are rown on the rich San Andres tobacco farms of Mexico. Our distinctive, costly wrapper leaves are rown in the fertile Connecticut Valley. Yet even in . vintage year, no more than several bales of eaves are worthy of a Macanudo Vintage Cabinet Selection.

To enhance the inherent superiority of our vintage leaves, our master cigar-makers age them even more gradually than they age our other tobaccos. The leaves are aged for two years while still in their bales. As they are carefully blended, the leaves are aged again. And after the leaves are finally bound, then wrapped, and appear to be finished cigars, they are aged once more, this time in a room of Spanish cedar. Then, only after long weeks of undisturbed slumber, the tobaccos are truly married, truly one.

A limited edition by nature, each Macanudo Vintage Cabinet Selection in its hand-crafted cedar cabinet is more than three years in the making. And if, from time to time, the cigars are not as readily available as you would like, their extraordinary taste and aroma will soon reward your patience.

For the location of the tobacco shop nearest you where you can purchase Macanudo Vintage Cabinet Selection cigars, simply call 1-800-622-3351.

At long last, your search for the rarest of cigars will have come to an end.

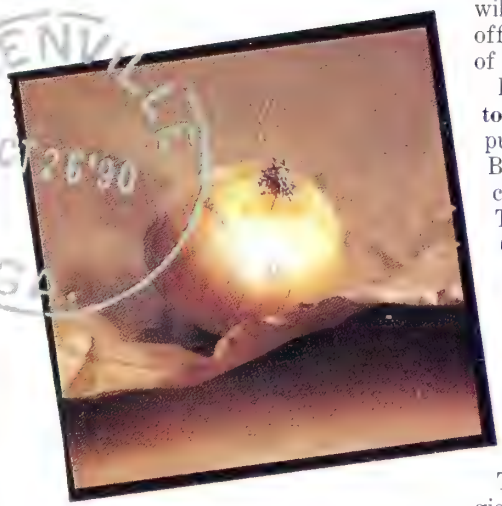
Macanudo® Vintage Cabinet Selection

Montego Y Cia 1990

EDIBLE EXPRESS

BY RICHARD NALLEY

SIGNING A TREATY, FORGING AN alliance, contracting a bargain—great moments in trade and commerce were traditionally celebrated with a feast, the sharing of food and drink. Few companies leave a budget line open for "feasts" anymore, and besides, modern deals are often cemented with the other party time zones or even continents away. But edible gifts can still be offered via the deliveryman. And with the recent proliferation and specialization of mail-order food companies, comestibles can be matched perfectly to the recipient's tastes.



Lovers of delicacies can be graced with almost fall-of-Rome banquet exotica (hold the peacock tongues) through a phone order. Young "farm fresh" abalone are available from **Ocean Farms of Hawaii** (800 422-6690). An entrée for four, including a packet of Hawaiian herbs, recipes, and fresh roasted Kona coffee, goes for $135. The New York branch of Paris' caviar mecca, the **Petrossian Delicacies Shop** (212 245-2217), offers whole fresh goose foie gras with truffles for $33.50 for 4 ounces; firm and lightly salted Beluga caviar is $116 for 50 grams. Competitor **Caviarteria** (800 4-CAVIAR; in New York, 212 759-7410) serves up a Caspian sampler of four assorted jars for $100; an extra $50 will fetch a mother-of-pearl platter and spoon. **Gifford's Gifts of Fine Food** in Boston (800 225-5800) will send along pheasant pâté with cognac (4 pounds, $96.75) or four terrines, including smoked salmon mousse, for $34.50.

Those who prefer to take their fish straight will appreciate a gift from **Barney Greengrass**, the "Sturgeon King" (212 724-4707). Lox is $12.50 per half pound; sturgeon is $20 per half pound. New York's famous **Zabar's** (212 496-1234) will send up to a whole side of smoked Scottish salmon (call for weekly prices). And **The Olde Maine Lobster Company** (800 562-7909) will send live lobsters to the recipient's office (prices vary by size and number of lobsters ordered).

For those who prefer meat, **Harrington's** in Vermont (802 434-4444) will put together a "Smokehouse Gift Box," including cob-smoked ham, bacon, and Canadian bacon for $55.95. The **Smithfield** collection (800 628-2242; in Virginia, 804 357-2121) offers smoked glazed hams for $54.95. Sending raw meat through the mail may seem a bit chancy, but it arrives juicy and toothsome from **Omaha Steaks International** (800 228-9055). Four 6-ounce filet mignons with seasoned butter sauce go for $29.95.

Those with an affinity for the regional might like **Blue Heron Farm**'s (413 339-4045) USDA Grade A Medium Amber Maple Syrup ($18.50 per half gallon). **Bland Farms** (800 VIDALIA) sells Georgia's famous sweet onions from December through June, with a 25-pound bag of jumbos going for

$31.95. Salt-water taffy, clam chowder, cranberry chutney, and much else comes in the "Fond Memories" basket ($54.95), available from **New England Country Fare** (800 274-FARE; in Massachusetts, 617 329-4874).

Down South, **Dudley's Country Kitchen** (901 285-3681) packs gift boxes containing grits, biscuit mix, molasses, and country-sliced bacon (the "Southern Sampler" is $45). And you can order smoked catfish pâté ($12 a pound) from **Antique Mall Ltd.** of Indianola, Miss. (601 887-2522).

For seasonal fruits that arrive at the perfect ripeness, it's hard to beat the old standard. **Harry and David's Fruit-of-the-Month Club** (800 547-3033) ships twelve months of kiwis, grapefruit, pears, and the like for $219.95, or three months for $55.95. **American Spoon Foods** (800 222-5886) provides dried Michigan and Midwestern morels ($18 per ounce) and a selection of regional specialties such as Washington state snap beans ($6.50) and Santa Barbara pitted garlic olives ($6.95).

If thirst is the thing, you might try **Simpson & Vail** (800 878-TEAS; in New York, 914 747-1336). The Treasure Chest gift canister, with five types of tea (100 bags) in a decorated container, goes for $16.50. **Luzianne** (800 692-7895; in Louisiana, 504 524-6131) sells New Orleans-style coffee, including dark roast coffee and chicory ($30.80 for 12 1-pound cans, or $41.80 for the decaffeinated). And Atlanta-based **J. Martinez & Co.** (800 642-5282) offers vintage estate coffees, imported exclusively from Jamaica, Guatemala, Hawaii, and Costa Rica; selections range from $19 to $123.

For oenophiles, **Sirus Cellars** (800 63-SIRUS; in California, 714 552-1149) offers a broad selection of California wines, including the 1981 Heitz Bella Oaks Cabernet Sauvignon ($37.50 per bottle separately; $33.75 per bottle by the case). **The Burgundy Wine Co.** (212 691-9092) offers Domaine Dujac's rich, spice-inflected 1986 Bonnes-Mares for $65 per bottle. Cases go for $702 each.

There are sweets galore available from **Sweet Exchanges** (800 527-2216; in New York, 212 242-7692), which offers a New York-style cheesecake ($24) and a chocolate amaretto cake ($20). **Cravings** (201 531-7122) will ship Mississippi mud pie ($15), or (in winter months) a cake called Decadence—a chocolate crumb layered with Kahlúa and Jamaican rum mousses ($19). **Monica's Gourmet Foods** in Kalamazoo (800 843-3645; in Michigan, 616 342-2424) specializes in pecan butter balls, in chocolate, traditional, and almond flavors ($12 for an 11½-ounce tin).

And for the person who has everything—except enough chocolate—**Godiva Chocolatier** (800 447-9393) will provide the Gold Ballotin, milk and dark chocolates in the company's trademark gold box. A 1-pound assortment sells for $25, but if that's not rich enough, Godiva also offers a staggering 10-pound assortment for $260. ★

Richard Nalley is a New York-based freelance writer specializing in food, wine, and travel stories.

PHOTOGRAPHS BY LIZZIE HIMMEL

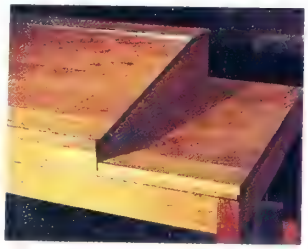
GIFTS THAT WORK

Embellish your favorite executive's suite with these choices for the home and away from home

BY THOMAS HINE

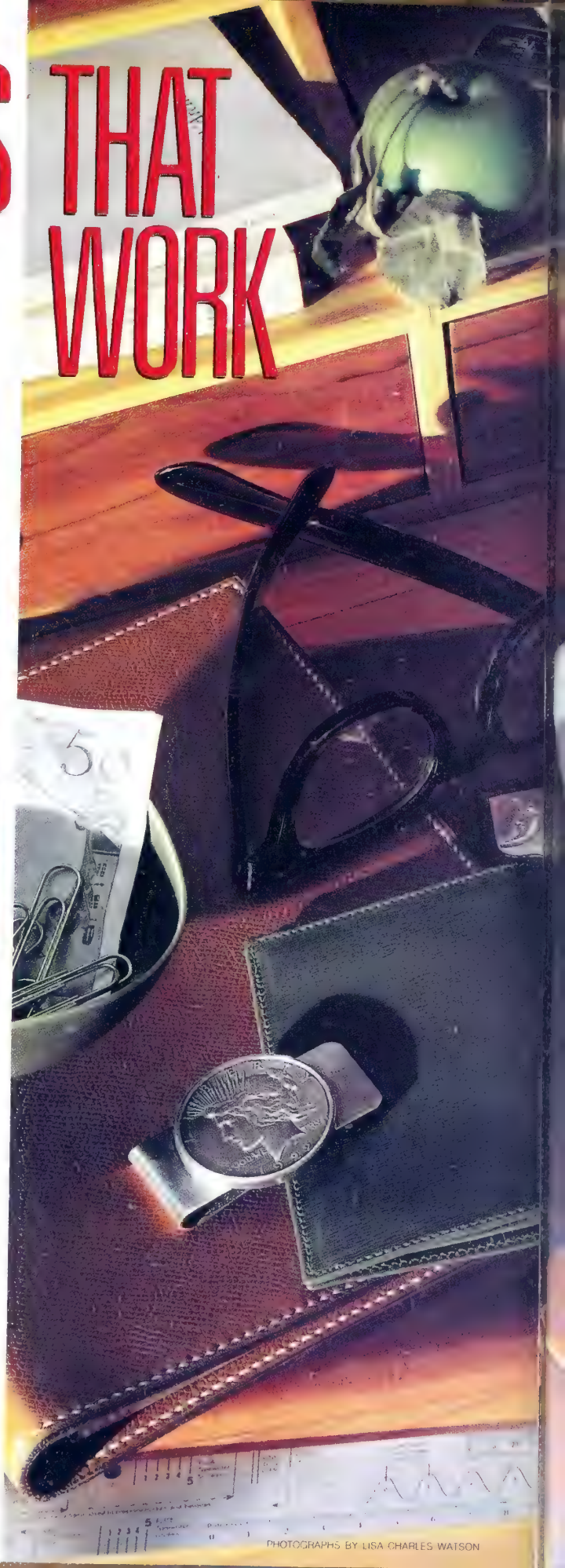
IN A COMPUTERIZED WORKING world, only an executive needs a blotter. That's not just because executives are the employees least likely to know how to use computers, or because they have a weakness for fat, expensive fountain pens. Rather, it is because such vestiges of an earlier age suggest a continuity that, though it may be spurious, is reassuring.

An executive's office is both a corporate and a personal expression. The décor is more often symbolically useful than truly practical, but precisely because office items are symbols as well as tools, selecting them can be tricky. They should be neither excessively idiosyncratic nor too impersonal. They should help express individual character, but they must also serve as props for an executive's corporate role.



Anyone who is buying a gift for use in the office needs to keep the recipient's personality and business approach firmly in mind. This is particularly true now that "winning through intimidation"—including displays of pure prestige-label firepower—seems to be out, and the ideal of the executive as inspirer, organizer, and leader has returned. In keeping with this image for the '90s, we have chosen a collection of gifts for the executive suite that suggest their owner is solid yet flexible, respectful of traditions yet open to the new, and fanciful yet not frivolous.

A prime example is the High Standing desk by Thos. Moser Cabinetmakers (see inset). Made from Pennsylvania cherry, it exhibits fine craftsmanship and a clean traditionalism in its design. But it also represents a different executive attitude—not just upstanding, but literally standing up. It is for those whose backs, or temperaments, make it difficult to sit still. Its tilt front makes it useful for reviewing



PHOTOGRAPHS BY LISA CHARLES WATSON

Gift information on page 211HG

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A quick note. A silly doodle. A clipping from the local newspaper. They may not seem like much, but to someone far away from home, they can mean a lot. And now there's a fast, easy way to send these heartfelt messages to a loved one stationed in the Gulf. For free.

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Just go to your nearest AT&T Phone Center to pick up an official Desert Fax form. Put your personal message in the space provided.† Fill in the necessary information including social security number and APO/FPO. An employee will fax it for you. And the person in the Gulf should receive your message within a few days.

Desert Fax messages can only be sent from the U.S. to the Gulf using the official forms available at all AT&T Phone Centers. To find out where the one nearest to you is located, and its hours, consult your white pages. Or call 1 800 555-8111, Ext. 36, Mon-Fri 8am-6pm, Sat 8am-4pm.

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**Active Duty and Reservists †Blue or black ballpoint pen recommended

papers, and a flat surface holds a telephone. The top lifts up like that of an old school desk, revealing drawers and desk organizers.

Nostalgia for school days is part of the appeal of M & Co.'s stainless-steel ruler, which comes in a wooden case. Examined closely, it is not so much a ruler, marked in both inches and metric units, but a meditation on measurement. On the front, it reminds the user that not only does "1 inch=2.54 cm," but also "time=money." On the back, there are gradations for printer's measures, architects' scales, wire gauge, a hair's breadth, and long-, medium-, and short-grained rice. The only thing missing is bean-counting.

Even though most executives' secretaries open the mail, letter openers are among the most attractive and varied pieces of office regalia. Jewelry designer Lisa Jenks' striped-handled, pewter letter opener straddles the boundary between adornment and weapon: It is boldly handsome to the eye and comfortable in the hand.

And the Ray Hollis combination ashtray and vase, by the French designer Philippe Starck, expresses contemporary ambivalence about smoking that would be appropriate for someone who intends to give up the habit. This boxy vessel, of polished pewter with a pivoting top, can stand up to support flowers, or lie down to hold burning cigarettes (and cover the unsightly ashes).★

Thomas Hine is the architecture and design critic for the Philadelphia Inquirer. *His latest book,* Facing Tomorrow, *is due out next year.*

GIFT CREDITS

Inset: Desk by Thos. Moser Cabinetmakers, Portland, Maine, $3,100. Large photo, clockwise from top right: Henry Dreyfuss 1935 aluminum, steel, and bakelite thermal pitcher and tray from Fifty/50, New York, $600; silver oversized-pocket-watch desk clock, circa 1880s, from Kentshire Galleries Inc. for Bergdorf Goodman Men, $2,625; one-handed Solo pocket watch from M & Co., New York, $195; black leather-covered pewter flask by W&H Gidden from Bergdorf Goodman Men, $140; Parker pen and pencil set from Time Will Tell, New York, $300; square leather change purse by Hermès, $195; English stainless steel ruler by Fair/Square from M & Co., $25; leather desk agenda by Hermès, $675; celadon green Swedish bowl from Fifty/50, $550; 1922 silver-dollar money clip from Vito Giallo Antiques, New York, $150; green leather wallet by Romeo Gigli, $113; leather portfolio case with sterling closure by Barry Kieselstein-Cord from Bergdorf Goodman Men, $550; pewter letter opener by Lisa Jenks from Barneys New York, $75; sterling silver pen by Tiffany & Co., $200; pewter ashtray/vase by Philippe Starck from See, New York, $90; brushed stainless steel cubic paperweight by Steve Buss from Uzzolo, New York, $20.

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HOLIDAYS FROM HELL

ON TELEVISION, EVERYbody is supposed to be happy on holidays. Personally, I don't know how many people are like Robert Young and Jane Wyatt on Thanksgiving. But holidays around my family are particularly depressing. My family is like a diseased, hypochondriacal coven. We used to have holiday meals in the basement. We would put a cloth over the Ping-Pong table—and my mother always kept the net up. It was like the Berlin Wall. All the relatives we despised sat on the other side of the net.

We always got caught up in the Christmas hoopla. We were Jews, we went to temple, but we always had a Christmas tree *and* a Hanukkah bush. Let's face it, Christmas is more exciting because you get all your gifts at once. At Hanukkah, you may get a bicycle on the first night but by the seventh night, you're getting pictures of Abe Vigoda.

The worst Hanukkah get-together we ever had was when we had a German maid. She was supposed to cook all these subtle Jewish dishes. But when she brought out the soup in a giant tin, I knew we were in trouble. She had made one matzo ball for eight of us—it was the size of a bowling ball. We had to divide it up with one of those Black & Decker things my father used to trim the hedges.

A lot of my relatives died on holidays. Name a holiday, I'll give you a disease. Christmas? Uncle Ray. Died. Leukemia. Hanukkah? Uncle Harry. Consequently, every holiday is basically us mourning the death of a relative. So we never felt we deserved gifts on Hanukkah. On Thanksgiving, we ate but felt miserable because my mother would glue a picture of my dead uncle onto the back of a bridge chair. And everyone always gave the same present—black shrouds. They all shopped at a Shrouds-n-Things in a New Jersey mall. Now, if I'm invited to a holiday by a relative, I complain about chest pains or tell them I'm having a root canal done.

I grew up in Englewood, N. J., the gift capital of the world. There are more malls per square people than anywhere else in the world. A lot of malls. People get married in malls, get annulments, and get married again. You can take a vacation in a mall or have a heart attack in a mall. Now, there are hospitals and even funeral homes in malls. I had most of my emotional problems at malls. My parents didn't want to go anywhere but a mall. And parking is always a problem. But I'm still a mall guy—I'm not a mallist, don't get me wrong, but I'm basically pro mall.

I love getting presents, particularly if it's a surprise. You hear about people waking up and following a ribbon outside to a new car: In my family, the ribbon would be attached to a social worker. A girlfriend of mine once gave me a massage chair. It's the most luxurious, fantastic gift of all time. I'm trying to order a shrink attachment for it. Another girlfriend once gave me an electric guitar. That was a beautiful gift: a Bendercaster? Fendercaster? Casterplaster? Strattercaster—that's it. Actually, it wasn't a Strattercaster; it was a Fender, a very famous guitar. I

INTERVIEW BY ELLEN ALCORN

know three chords. I can play only one song—*Massachusetts* by the Bee Gees—on a $9,000 guitar.

I usually celebrate holidays with friends, unless I'm involved in a relationship—and then I try to sleep through them. Holidays usually put too much pressure on what is already a relationship on the brink of failure. Once I gave my soon-to-be-ex-girlfriend a huge box turtle. He was about a foot long. When our relationship began to deteriorate, so did the turtle. He hated my ex. I don't blame him—she never fed him. The turtle finally committed suicide. He just stopped sticking his head out of his shell.

Holidays in L. A. are horrible. They pretape everything. Dick Clark does New Year's Eve and tapes the show in April. Once I was asked to host a *Rockin' New Year's Eve*. When I pointed out that it was only March, the producer said, "Yeah, but everybody's going to make believe it's New Year's." At Christmas, it's 85 degrees and they put Santa Clauses across Rodeo Drive—they put them in Mercedeses and make them wear berets. Holidays are really hell out there. ★

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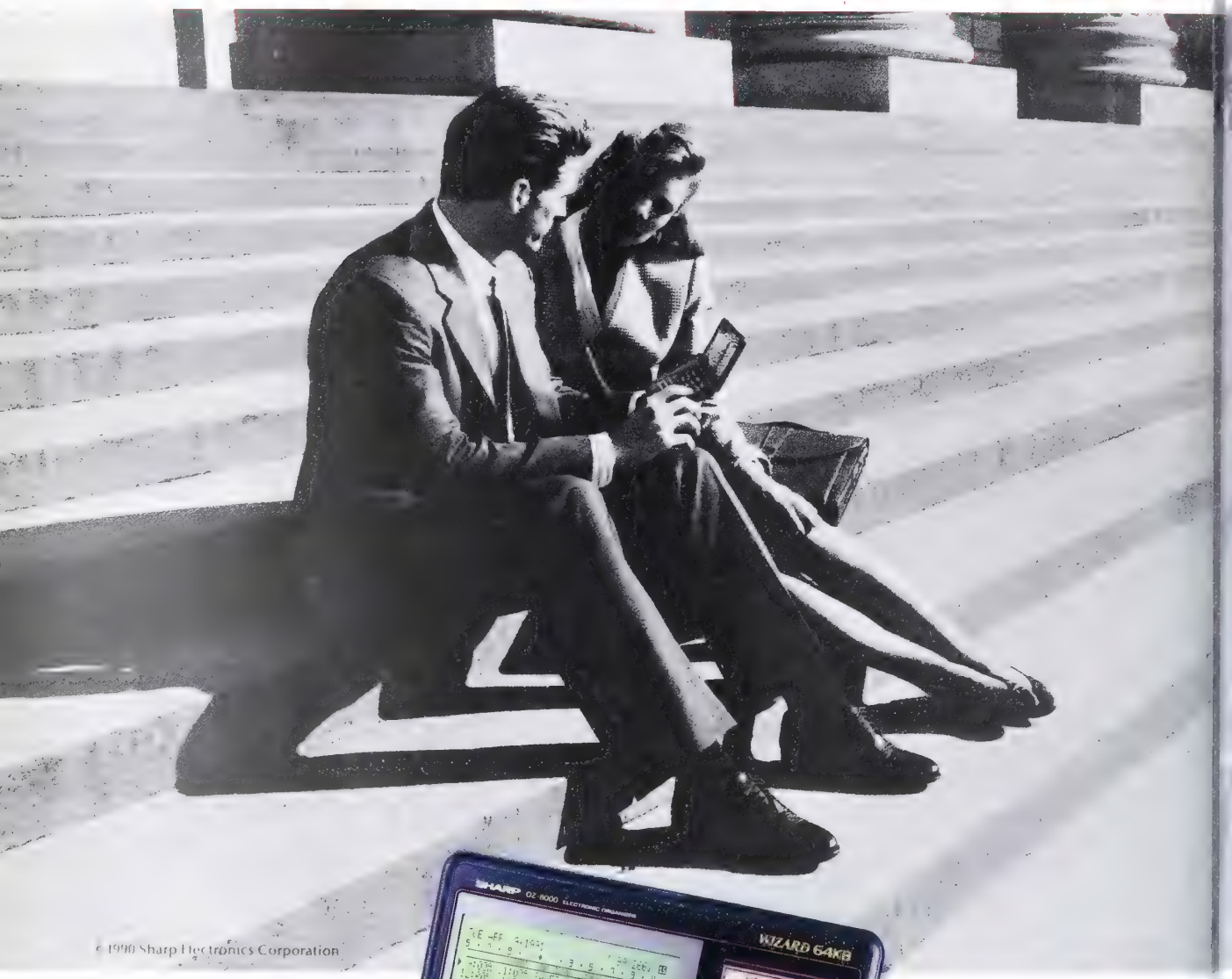

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TIE ME UP, TIE ME DOWN

One man's uneasy relationship with the most famous gift gear of all

AH, THE CLIP-ON TIE. AS A KID, I never owned any other piece of clothing quite so ridiculous—it was as if someone had shot a tie and mounted it—or so fraught with implications. Every other item in my prepubescent wardrobe sent a positive message. Here's a shirt with buttons, just like Dad's: You can learn to work those buttons and grow up to be a successful male. Here's a pair of shoes with laces, just like Dad's: You can learn to work those laces and become a productive member of society. Then came the clip-on: Here's a tie that's nothing like Dad's, because it is our parental opinion that you are incapable of learning how to work a real one. Oh, and it's ugly, too—striped in such peculiar shades of blue, orange, and yellow that it doesn't even match *itself.*

I personally would have preferred almost any other apparel indignity—prezipped pants, magnetic-buckle belts—because, growing up, I adored watching my father tie his tie. He did it with great authority and dexterity, his motion always the same, as was the result—a perfect, broad knot with a dimple just below. I would love to say that the secret of tying the mysterious "Windsor knot" was one of many skills I hoped my father would pass on to me as a rite of manhood. But that would make me sound like the last five minutes of a *Wonder Years* episode. It would also be a lie.

The truth is, I do not come from a family with a heritage of manual skills. Tying things—ties, fishing lines to lures—was about all my father did well with his hands. (Don't ask about the "cat entrance" he hacked into the side door of our garage.) So being tacitly told I wasn't yet worthy of the

For those more sophisticated in the ways of neckwear, from left: Silk tie with Ottoman stripe, XMI, $67.50; silk print of antique typewriter keys, BUBB by Brian Bubb, $62.50; silk polka-dot tie, Brooks Brothers, $35; silk jacquard with 'O' print, Polo by Ralph Lauren, $52.50.

BY STEPHEN FRIED

PHOTOGRAPH BY KAREN CAPUCILLI

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All that glitters in shades of green and gold: At left, silk horse-bit pattern, Gucci, $95; silk tie with biomorphic print, Joseph Abboud, $80; shimmering silk tie with linking oval pattern, Giorgio Armani, $80; silk tie with woven checkerboard pattern, Romeo Gigli, $95; silk tie with elliptical dot pattern, J. Crew, $34.

At right, silk tie with woven balloon dots, Barneys New York, $58.50; squiggle-over-rep-stripe silk tie, Emilio Pucci, $60; silk square print, Charvet, $90; silk tie with whorl pattern, J. Crew, $34.

when tightened, or the front would be shorter than the back. Out of desperation, my father showed me what I'm sure he considered the knucklehead's way of tying a tie: the once-over, a long, insubstantial knot that did nothing to enhance the tie's complexities. It lacked style, but it was a step up from neckerchief rings, and I assumed that some day, when I was older, the Windsor knot would come to me.

IT WAS AT ABOUT THIS TIME, THE early 1970s, that American men began taking more interest in sartorial splendor. Boutiques sprang up to satisfy the new demand for loud, wide-lapeled suits to match the sideburn styles of the day. Really beautiful (or at least really expensive) men's clothes were starting to trickle down to the masses. Even a teenager in Harrisburg, Pa., could sense that the world was changing. The very fabric of our nation was being recut into designer ties, most of which were wider than the wearer's neck (or waistline). The future belonged not to those who could tie impressive knots but to those who owned impressive ties.

By the time I graduated from col-

nowledge required to make a Windsor not was particularly crushing.

As fate would have it, by the time I vas ready to graduate from clip-ons to ieckties, nobody wanted to tie anyhing anymore. It was the era of the me male fashion accessory that they'll ikely strike from the history books, if ts existence was ever recorded: the ilk neckerchief, held in place by the irst brass ring I was ever taught to grab. I was lucky enough to have an mbitious mother who wanted her sons o learn early the many joys of accesorizing. So she sewed us neckerchiefs *nd* matching sashes to wear in our ell-bottoms instead of belts.

Finally, when I was 13, a religious ite of passage forced the tie issue. For ny bar mitzvah, I purchased my first erious tie; for my bar mitzvah party, ny first fun tie. Both were red, white, nd blue: one a pleasant mélange of swirling colors, the other a bold slice of he American flag. My mom loved the ormer—I think she tried to order a ofa upholstered in the same fabric—nd I loved the latter, but the great hing was that they both matched the ame jacket, shirt, and pants.

I had learned a valuable lesson about ies, but I had not learned how to tie a Windsor knot. When my father tried to show me, I just couldn't get the hang of it: The knot would come undone

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lege in the late 1970s, I had turned against ties completely. It was the beginning of the businessman-hero era, the salad days of power dressing. My only career goal was getting a job that didn't require me to wear a tie, ever. Besides, men's fashion was becoming so extreme that you couldn't afford nice ties anyway: A store that might once have displayed 50 different ties at $10 each now had 10 ties at $50 each.

When I got married in 1987, I bought my first truly expensive tie. It cost more than the shirt I wore and, if I remember correctly, only a few dollars less than the ring. As my wedding pictures clearly show, I did not tie it in a Windsor knot. My parents had been right: Here I was, 30 years old, and I still wasn't ready for a real tie.

WE HONEYMOONED IN THE north of Italy, where, I think, the concept of the $50 tie was actually born and nurtured. In Sienna, my wife and I happened on a little store with no sign, just a window full of the most beautiful ties I had ever seen. Inside, the owner sat in the middle of a room full of long, unmarked cardboard boxes which, when opened, revealed flowing, multicolored fields of quality neckwear. The presentation was so unpretentious and alluring that I bought more ties that day than I had in my entire life. They were pretty expensive, too—although, since I'm no whiz with exchange rates, I still don't know exactly how expensive. But suddenly I had a tie wardrobe.

When I got home, I started trying on the ties. Several were of very fine silk, and the knots I made looked pretty emaciated. I thought about calling my father and asking him, once and for all, how to tie a Windsor knot, but I was too embarrassed: He had, by this time, showed me how to do it dozens of times. I decided to try just one myself. I closed my eyes and let my hands recreate what I had watched so many times as a child. I made the knot, tugged it snug, and inched it toward my throat. I opened my eyes and, lo, I saw that it was good.

If I ever have a son, he can wear slip-on shoes, shirts, and pants for all I care. By then, there will probably be underwear with computer-assisted flaps and hydraulically adjustable basketball sneakers. He can have them. But he's not starting nursery school until he can tie a Windsor knot. ★

A writer for Philadelphia *and* GQ *magazines, Stephen Fried is working on a book about the fashion industry.*

Mood indigo, clockwise from top left: silk star print, New Republic Clothier, $40; silk polka-dot tie, Polo by Ralph Lauren, $55; rep stripe, Kilgour, French & Stanbury, $58.50; silk sunburst print, BUBB by Brian Bubb, $62.50; silk polka-dot tie in red or white on blue, Paul Stuart, $49.50.

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PARTY POLITICS

The inestimable Miss Manners tells how to survive the office Christmas bash with career and reputation intact

BY JUDITH MARTIN

ETIQUETTE AT AN office party? Why, these people have been socializing happily every working day of their lives, give or take a few melees, rumors, and complaint petitions. All it takes to turn this into holiday merriment is a bit of greenery looped around the office—the staff will soon be looped, too. Surely it is enough that the annual Christmas party has the magic ingredients: time off from work, free food and drink, and a spirit of fun replacing such ugly work realities as sexual harassment.

Furthermore, party-goers figure, it offers relief from such pesky obligations as thanking anyone or being kind to wallflowers, because there really aren't any hosts. Nobody has to pay (that same Nobody who generously provides the telephone line for long-distance personal calls), and so nobody's feelings need be considered.

This is all pure hospitality—there for the taking, like the office-supplied felt-tipped pens everyone has been pocketing all year. Out of the natural goodness of its corporate heart and the spirit of the holiday season, the company wishes only to give its employees a roaring good time, and the employees, out of loyalty and the thrill of getting to know their bosses off-duty as equals, delight in the opportunity.

For those still dimly aware of the once-standard give-and-take of real social life, this no-fault approach to business entertaining seems a godsend. In the now-rare domain of genuine society, hosts are supposed to plan and pay for the entertainment of their guests, on their own time and in their own houses. Guests have strict duties, as well—from answering invitations to co-

LUSTRATION BY EVERETT PECK

operating with all arrangements, even to the extent of pronouncing them perfectly lovely.

Business entertaining appears to remove the burdens of time, effort, money, individual responsibility—and the etiquette connected with them. The people who do the planning are paid for their trouble, so those who benefit need not consider they have incurred a debt. Why, the annual Christmas party ought to be an inspiration to lower-level employees to work their way into realms where company-sponsored partying can be enjoyed all year long.

NOT SO FAST. FLINTY MISS MANNERS does not recognize any holidays from etiquette. (Employees, if not employers, should consider themselves lucky that she is only on the Party Committee, not the one that might take up ethical questions about those pens and calls.) Office parties differ from private ones but are no freer from rules.

If it were indeed true that everyone has a better time without etiquette, Miss Manners could easily be persuaded to take the day off. But having long served on the Office Party Etiquette Cleanup Subcommittee, she is aware that things generally do not go well when there is no recognized etiquette and everyone is forced to improvise.

Let us look at all this spontaneous, carefree fun: There being no proper place for the boss, he or she hangs around the door, concerned about mixing with everyone. It might discourage hospitable bosses to see guests staring at them in horror and then slithering in by a side door. But etiquette's solution of having everyone greeted in a receiving line was rejected as too stiff. So one can hardly blame employees for recalling a long-ingrained principle of the workplace: Seeing the boss and having a good time are best not scheduled at the same time.

Desperate to make the time count, the boss grabs the nearest available person and starts delivering practiced words about the contribution he makes to their great enterprise. The reaction is not quite what was hoped for. Discreet questioning establishes that this is an employee's guest. He doesn't work for the company, recognize the boss, or appreciate the attention—and, as a matter of fact, has only a passing acquaintance with the employee who issued the invitation. What this guest wants is not professional fellowship but a fresh drink, if the boss

ILLUSTRATION BY EVERETT PECK

would kindly step out of the way.

Now, the reason the invitation said "and guest" was to avoid the ticklish issue of who is still married to whom and what the spouse calls itself. Last year, unmarried employees were furious when their partners were not included, and married employees complained that the forms by which their spouses were addressed were offensive: "Mrs." insulted women who preferred "Ms.," and the assumption that husbands and wives had the same surnames outraged everybody who didn't. This year, the complaints will be from spouses who were not told that there was a party or who were told that spouses weren't invited—but found out otherwise. There won't be many complaints. They will, however, be memorable, darkly charging the company with promoting immorality.

Meanwhile, what about those who are interested in promoting a bit of immorality, or just plain romance, of their own? They, too, are creating problems that will reach far into the new year. True office romances are the least of them, with their charges of favoritism and melding professional and personal time. More serious is the fact that, in spite of the liquor and low lights, it still counts as sexual harassment when anyone with supervisory powers makes unreciprocated overtures to a lower-ranking employee. And foolhardy when a lower-ranking employee annoys a higher-ranking one.

SOME EMPLOYEES HAVE THEIR MINDS only on business and will be spending party time actively promoting workaday concerns. Remembering the company rhetoric about open communications and all being in this together, they will actually seek out the boss, who by this time is grateful to be addressed by anyone at all.

But they don't want to engage in platitudes. They accept compliments with: "Well, then how about a raise?" They plead for promotions, explain confidentially who ought to be fired, and advance previously submitted ideas about revolutionizing the business that have been unaccountably unappreciated for years. In one evening, they manage to cut through the entire hierarchy and procedures the boss has painstakingly established for the purpose of being spared this kind of importuning.

Eventually—usually somewhat late in the party—it occurs to someone that this informal setting is just the time to offer the boss some constructive personal criticism. What else does talking frankly and informally mean but an invitation to unload opinions without any career consequence?

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Here is where the company has pulled a fast one on its employees. "Go ahead," it has said, "relax, have a good time, forget about the job." And the naive have taken this at face value. This event is called a party, it looks like a party, so it must be a party—a place where one lets loose without worrying about being judged by the cold standard of professional usefulness.

EVEN EMPLOYEES WHO ADHERE strictly to standard business dress in the office may not know what the bosses might consider vulgar in evening wear. Here is a chance to show off their racy and imaginative off-duty clothes. But over there are supervisors murmuring that people who look like that can't really be sent out to represent the company.

Worse are the comments on anyone whose idea of fun is a little boisterous. It may be just the behavior that makes one a delight—or a trial—to one's friends. But here, it is not being offered for the delight or tolerance of friends. It is being judged on criteria other than whether the person is a riot.

It is not that Miss Manners wants to spoil the office party by these warnings. She just wants to prevent it from spoiling careers. And the solution is what was banished from the party for being too inhibiting: etiquette.

The first formality that must come back is inviting everyone by name. The practice of merely counting every invitation as two is as dangerous as it is unflattering. But people who have been clearly identified and told that they must respond—the suggestion must be made neutrally, to show that the party is a treat, not a requirement—already have some sense that they are both individually sought after and expected to be responsible.

What constitutes a couple is a murkier question than Miss Manners and any sensible employer ought to investigate, but employees simply can be asked to supply the name of a spouse or friend they want to invite. (An office party can be limited by confining it to employees, in which case it should be held during office hours. But inviting spouses and such is better. Having to work is enough distraction from one's more intimate relationships, and the staff was not compiled like a guest list, according to personal compatibility.)

Since we have established, Miss Manners hopes, that the point of an office party is not whooping it up or telling people off, what is it? It is showing appreciation of the staff.

This starts with a well-run receiving line. However much popular opinion may regard receiving lines as nast ordeals, they were invented to be, an remain, the easiest way to get every one recognized by the key people. Th oldest receiving-line trick in the worl still works: Someone whose business is to know everyone—or someone u important enough to be able to as each guest his name—announces th guests to the host as they go throug the line. The host can then scornfull declare: "Of course I know Annett We couldn't run this place withou her." For extra charm, the employee guest is also told how wonderful tha employee is. This always seems mor sincere than straight-out flattery, an from then on, whenever the employe complains that everyone at the office i an idiot, the spouse will counter b repeating that appreciation.

It is often erroneously assumed tha the style of the party ought to be wha employees are used to: their own kin of music, food, and other things th executive level believes itself to hav outgrown. Nonsense. What employee want is a taste of high-level entertain ing. This may vary greatly accordin to the nature of the business. If, how ever, the party is too formal for th employees' taste, they'll get a goo laugh and enjoy the contrast all th more when they continue partying o their own afterward.

THE CLEVER EMPLOYEE WILL DRES as the executives do, keeping in min that there are few fields in which peo ple are condemned for looking insuffi ciently provocative. Refusing or limit ing drinks is not the handicap a business parties that it may be unde the overly hospitable eye of a private host. And the real opportunity for ca reer advancement is not petitioning a boss but rescuing one who has beer cornered or stranded, thus demonstrat ing that one knows how to talk charm ingly about nonbusiness matters.

At the end, there is another receiv ing line. That is, the bosses plant themselves conspicuously by the exit, grabbing the hand of anyone trying to get away and thanking him for coming. Even the dimmest guest will then realize it is appropri ate to thank back—that is, to realize that something has been offered and deserves gratitude.

After all, isn't that why the office Christmas party is given?

If the only goal were for the company to show the staff its appreciation, this could be effectively done with a day off and a bonus to go with it. ★

Judith Martin is the author of Miss Manners' Guide to the Turn of the Millennium *and five other books.*

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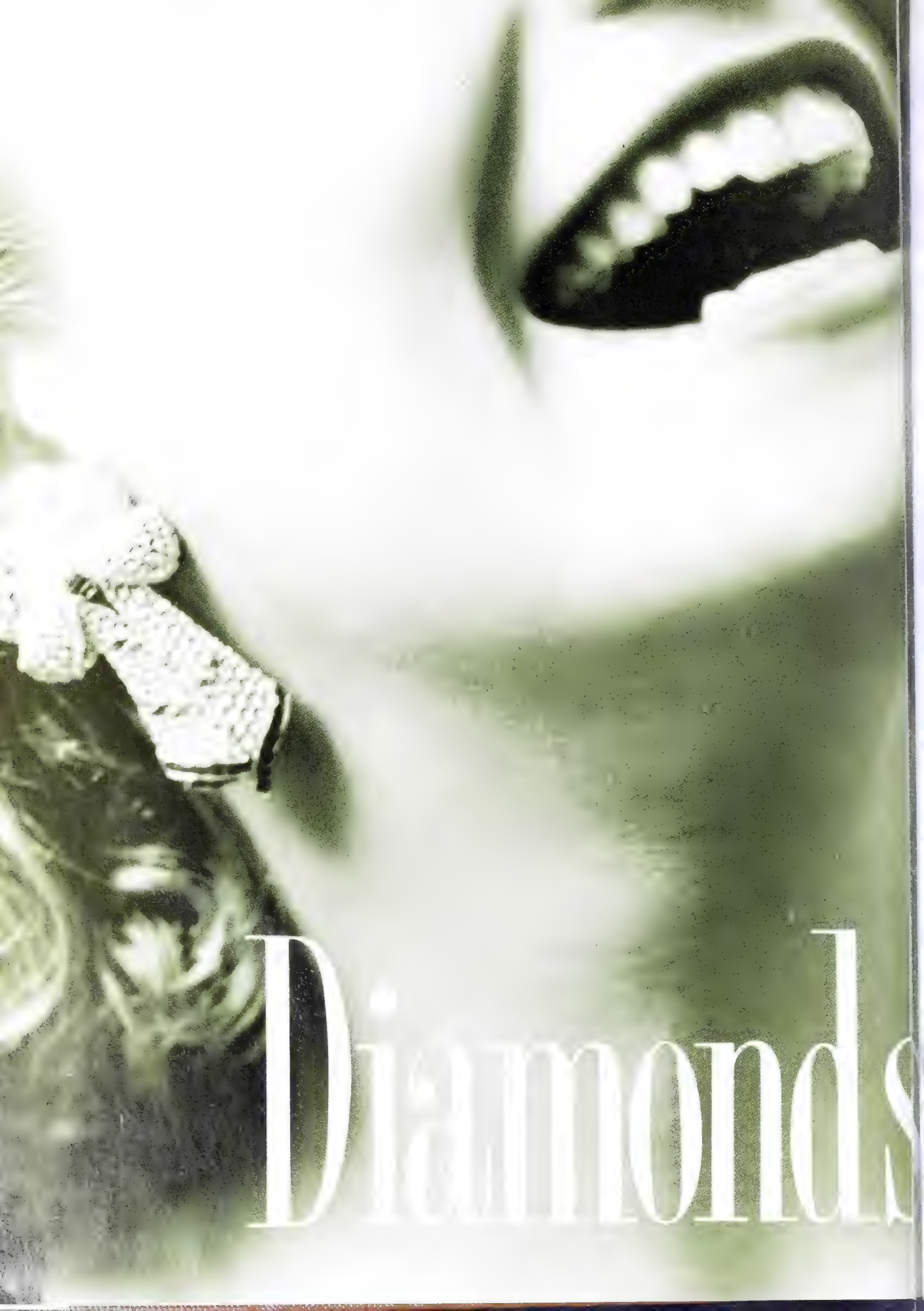

Diamonds

GOOD AS GOLD

BY ELLEN WELTY

FOR YEARS, A FRIEND OF MINE has hinted to her husband that she would like a necklace for Christmas. During that time, he has given her almost everything else—cameras, record players, shirts, sweaters, gloves, top-of-the-line athletic shoes. One year, he even gave her a bird. But never a necklace. Some nights, when they are dressing to go out, she has an urge to walk over, shake him by the shoulders, and yell: "Where? Where is my necklace?"

But she doesn't. She loves him. And she reminds herself that the man she married—like countless others—dreads shopping for jewelry. It took him two years to choose her engagement ring. He did buy her earrings once, during the first year of their marriage, but they were horrendous, as even he recognized when she lifted them out of the box: They looked like miniature teapots. That was the last time he went near a jewelry counter.

I see braver men than he shopping for jewelry each year as the holidays approach, and even they look daunted. As they wander the rows of gleaming gold and silver, it's clear from their stunned looks that they have no idea what to buy. Eventually, they stop at a counter and skittishly consider its contents. They drum their fingers on the glass, adjust their ties, clench their jaws. But they manage to leave with a beribboned package, because they believe that what women want most as a gift is jewelry.

They're right. Most women I know love to get jewelry. Don't get me wrong: Jewelry is not a prime motivating force in the modern woman's life. We don't love it enough to marry for it. We don't sit around in circles worshipping it, reverently passing pieces from woman to woman. Some of us never even learned the color of a sapphire; maybe it seemed too materialistic, or somehow anti-feminist, to care. But with few exceptions, even women who rarely wear any accessory flashier than a leather-strapped wristwatch, who would be loath to admit it even to themselves, would be secretly thrilled to receive a beautiful ring or bracelet.

When a woman is given jewelry, the piece is imbued with symbolic, sentimental value. Unlike clothing, which can fade, lose its shape, or pass out of fashion, a piece of gold or silver will always remain in perfect condition. Year after year, she will be able to wear it, polish it, admire it. She certainly will remember who gave it to her—she will even squirrel away the little velveteen box it came in.

Getting jewelry from a man is something a woman finds incomparably romantic. And just as receiving one red rose is more romantic than getting a dozen carnations, one exquisite piece of jewelry holds far more romance than an assortment of costume baubles. (There is a pragmatic side to all this sentiment—the higher the quality of the piece, the more spectacularly it will glitter over the years.) Giving a piece

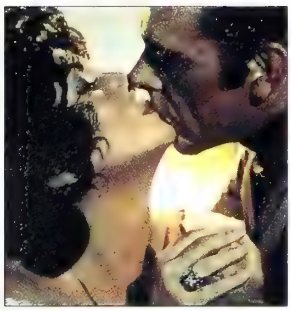
THE BETTMAN ARCHIVE

For the Duke of Windsor, no occasion was too trivial to mark with jewelry for his beloved Wallis Simpson. Auctioned for $50 million in 1987, her 300-odd baubles included commemorations of her appendectomy, an X-ray, and the day her dog was snake-bitten.

y still be a girl's best friend, but

bies, emeralds, and pearls are good company, too.

PHOTOGRAPH BY JAMES BRILL



After Elizabeth Taylor's agent was outbid at auction in 1969, Richard Burton persuaded Cartier to sell him the flawless 69.42-carat diamond for which the jeweler had paid $1.2 million a day earlier. Said a Cartier spokesman: 'I guess Elizabeth was very disappointed.'

At their coronation, Napoleon Bonaparte presented Josephine with a priceless, 3-pound pearl-and-diamond diadem and crown. He then insisted she wear the heavy headpiece throughout the ceremony and trip to the palace—and even during their private supper that night.

of fine jewelry could backfire only if the piece were so fancy that the woman would not have occasion to wear it unless she suddenly found herself on Georgette Mosbacher's A-list.

The wise man selects jewelry a woman will be able to—and want to—wear again and again. It really isn't as difficult as it seems to figure out what a woman might like. If, for example, she often wears little gold earrings and a little gold watch, it's a good bet she likes her jewelry little and gold—delicate, classic, understated, a string of pearls with a gold clasp, perhaps.

Other women disdain tiny accessories as too meek; bold, eye-catching pins and earrings are in order here. The only tricky prediction would be exactly which stones a woman would embrace. Amethyst? Emerald? (Of course, diamonds go with anything.)

If I were a man about to go jewelry-shopping, I would closely observe what the intended recipient wears for a few weeks. Then, I would sneak a peek at what she keeps on top in her jewelry box, because those are the accessories she really uses. If I were of a certain, well-heeled social class, I'd go to her favorite jeweler and throw myself on his mercy: "Ludwig, help me!" Otherwise, I'd best trust my own instincts.

One Christmas, a man I know went to buy his wife a watch, since she had mentioned that she wanted one. When the saleswoman asked if his wife would like an "elegant look," he nodded, since it seemed appropriate. "Well, then," said the clerk, "here's a watch your wife will love." The man had misgivings, but the saleswoman's purr soon convinced him that, because she was a woman, she knew what his wife wanted better than he did. Christmas arrived, and his wife unwrapped the box, all expectations. She pulled out the watch and burst into tears. "I don't wear gold!" she sobbed. "Don't you know me at all?"

"I knew it wasn't you," he protested apologetically, again and again. "This woman *made* me buy it!"

Lucky for him, his wife won't be needing or wanting another watch anytime soon. It's not that women keep charts tracking jewelry gifts over the years to make sure there are no repeats, but no one wants to receive a watch *every* Christmas. Or a necklace, or earrings. That's like turning on your favorite TV show only to discover that it's a rerun every time. Similarly, no woman wants a complete set of matching jewelry—earrings, necklace, and brooch with the same stones or etched pattern—unless she's also the rare female over age 12 who favors mittens that match her scarf and beanie hat. One of anything is usually enough.

AND OFTEN, THAT ONE IS perfect. That's what my necklace-coveting friend keeps trying to convey to her husband. Eventually, she may just beg him outright: "Just this once, I swear, and I'll never ask for anything more!" She's holding out this year, though, in the hope that he'll come through with the goods on his own. What she hasn't told him—but perhaps should—is that, while the necklace he chooses may not be exactly what she would have selected, the fact that he put the time and effort into choosing it will more than compensate for any flaws.

And that's definitely not the way she felt about the bird. ★

A senior editor at Mademoiselle, *Ellen Welty believes that good things come in small packages.*

One rose tops a dozen carnations, and a single gem outshines countless baubles.

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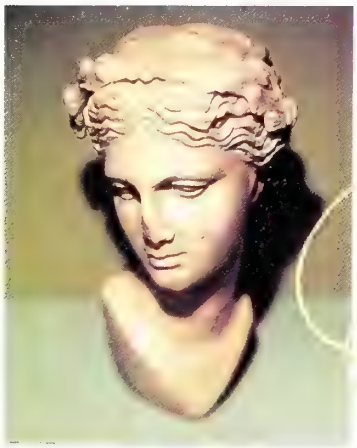

Today's museum emporiums offer chic wares, not just pictures from an exhibition

BY GLENN HARRELL

AY GOODBYE TO THE POST-card-and-poster stand: Today's museum shop has grown up. Across the country, *haute*-style emporiums are enticing a new breed of design-conscious consumer with a surprising array of merchandise. Reproduction sculpted-marble busts, handcrafted jewelry, and toys for children and adults are among the objects that greet the uninitiated shopper. For most institutions, fundraising has been the prime motivation behind shop expansion. As outside financial support becomes harder to find, and accession costs spiral upward with the art market, museums are turning to new ways to raise money. "We're looking outside of our membership for additional funds," says Maureen Marks, merchandise manager for Atlanta's High Museum of Art.

Shallow pockets aside, many institutions claim a cultural mandate to reproduce the art in their collections and have long emphasized their shops as an educational tool. As Terri Castano, retail operations director of the Museum of Fine Arts, Houston, explains, "Many collectors are born through museum shops. After seeing an exhibit, people have an immediate connection with the objects on sale." Much of the shops' popularity lies in their association with high art, and the museum logo now bestows a kind of cultural chic. "No doubt about it, there's a status that comes from a museum box," says Marks.

In pursuit of non-museumgoers, many larger institutions are also opening off-site branch stores and mailing out catalogs. Whether it's art or convenience you crave, the holiday season is a good time to check out the offerings. Museum members get a 10% to 25% discount, so joining can be worth the average minimum donation of $55.

The grandaddy of museum shops is New York City's Metropolitan Museum of Art. Chartered to reproduce and publish works of art, the museum has ushered in the era of accessible art wares. In the last three years, seven freestanding stores have opened in Manhattan, New Jersey, Connecticut, and Ohio, with two West Coast locales scheduled to debut this winter. The

At left: Cast marble head of Thalia, muse of comedy, after 2nd-century Roman original, $295, Metropolitan Museum of Art. At right, clockwise from top left: wooden Bauhaus chess set, board $55, pieces $125, Museum of Modern Art Design Store; reproduction 18th-century English playing cards, two decks $13.50, Colonial Williamsburg Foundation; acrylic prismatic sphere by VASA (accompanying acrylic stand not pictured), $335, Los Angeles County Museum of Art; 'Pendulum' rotating painted sheet-metal stabile by Brad Howe, $170, High Museum of Art, Atlanta.

PHOTOGRAPHS BY LEE FRIEDMAN

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Met's 144-page catalog features reproductions and adaptations of pieces from the museum's world-renowned collection, spanning 5,000 years. All items are exclusive, produced by or for the museum under its curatorial supervision. A few highlights: faux pearl earrings copied from those worn by Venus in Peter Paul Rubens' early 17th-century portrait ($45 pierced, $40 for screw-back); a stained-glass Tiffany window, luminous in 25 transparent enamels, to be hung or displayed on an accompanying stand ($68.50); and a selection of framed reproductions of early 19th-century botanical aquatints ($39.50 to $60 each).

Etched glass paperweight and marble by Harry and Wendy Bast, paperweight $5, marbles $22 to $62 for varying sizes, Whitney Museum's The Store Next Door.

Bringing modern art and design to the public is the Museum of Modern Art's stated aim, and the museum's Design Store in New York does just that, carrying reproductions of many of the objects in the museum's Design Collection. This is a haven for adult toys—high-tech gadgets for office, home, and person, including sleek desktop calculators ($20 to $85); travel shavers ($35 to $225); brightly colored leather baseballs ($19.50); and pens ($3.50 to a lavish $630). There are also architect-designed furnishings and accessories, no one-of-a-kind pieces but many that are generally unavailable at retail.

Another good gift source in New York is The Store Next Door, where you can find unusual, often whimsical, items, as well as American crafts. A venture of the Whitney Museum of American Art, it displays jewelry, clothing, toys, furniture, and household objects, many complementing the mu-

Now You Can Have Anyone You Want In The Palm Of Your Hand.

seum's exhibitions. Among the offbeat offerings: rockers and Adirondack chairs for children ($75); handmade crib quilts in traditional Amish designs ($300); and andirons welded from pieces of railroad track ($225 a pair).

LEE FRELMAN

Mail-order gift ideas from the Museum of American Folk Art in New York: Biplane fashioned from Coca-cola Classic cans by Chuck and Georgia Reidy, $53 plus $17 for shipping and handling; wooden spinning tops painted in eye-popping colors, set of six $18 plus $3 for shipping and handling.

THE RICH DIVERSITY OF the Smithsonian Institution, in the nation's capital, is reflected in its shops. The catalog showcases such singular items as handpainted lead toy soldiers of the heroic 54th Massachusetts Regiment ($135 for a set of seven); a solid brass reproduction of a Regency ink well with ball-and-claw feet ($85); and a Kentucky cedar birdhouse ($35) to mount on a pole or hang from a tree.

The Museum of Fine Arts, Boston, turns out an equally tempting catalog of decorative and personal accessories, including a sterling silver reproduction of Thomas Jefferson's pocketknife ($145); an imitation scrimshaw and solid brass letter opener ($26.50) and stamp box ($22.50); plus framed reproduction prints and an extensive selection of greeting cards. A big draw here are the kids' games with an artistic and cultural bent, such as the double-sided puzzle picturing a Franz Kline on one side and a Stuart Davis on the reverse ($15.95); a nine-piece rhythm band set ($29.95); and handcrafted German finger puppets ($32.95 for six).

The shop at the Museum of Fine Arts, Houston, offers an eclectic range of merchandise from ethnic crafts to industrial design products. Truly special gifts—from a Sri Lankan "devil dancer" marionette ($24) to a spoutless kettle based on drawings by Leonardo da Vinci ($70)—are the rule. Personal shopping services are emphasized; the shop is expanding to include a bridal registry in the spring and a downtown Houston branch specializing in American crafts next fall.

For affordable gifts that are often quirky and always fun, try the Art Institute of Chicago. Fans of this city's monumental skyscrapers will delight in the architecturally themed items, from maple building Archiblocks shaped like columns, lintels, and pediments ($59) to Italian ties embellished with 20th-century architectural motifs ($45).

To thrill the automobile buff, head to the Henry Ford Museum in Dearborn, Mich. The shop doesn't have a catalog but will ship its models and model kits. For the car connoisseur who has everything, you can order a custom-made diminutive replica of a 1908 Model T, 1939 Mercury, or 1965 Mustang in gold, silver, bronze, or pewter (prices start at $5,000). Outrageous flourishes such as diamond headlights and ruby taillights may be orderd. If airplanes and rockets inspire, look to the National Air & Space Museum in Washington for toys and memorabilia for all ages. For home or office, the precision-engineered thermometer and barometer offers metric, Fahrenheit, and Centigrade readings in a sleek, contemporary design ($90). For children, there's a NASA spacesuit with official-looking patches and plenty of zippers ($42); sonic plastic-and-metal robots to build ($36 to $40); and a biplane mobile ($16).

Old-fashioned Americana can be found at the Colonial Williamsburg Foundation in Virginia and Winterthur Museum in Delaware. One of the most far-reaching museum efforts, Colonial Williamsburg's catalog and design shops nationwide feature home accessories adapted from the period, such as a pewter tankard sized to hold a pint of ale ($80, additional charge for engraved inscription); and a handfitted walnut-and-maple gaming board ($128), with wooden checkers decorated with illustrations from Aesop's fables ($27). Winterthur's offerings are more decorative, including lush needlepoint patterns for pillows, with pastoral depictions adapted from early 18th-century English bed hangings ($36 per kit); and such garden ornaments as a Victorian rust-finished marble puppy, for use on a terrace or as a doorstop ($75), and a ceramic birdhouse modeled after a Chinese temple ($56). The Victorian-style glass Christmas tree ornaments are almost good enough to eat: sparkling clusters of grapes ($16 for a set of six); plump cherry tomatoes ($22 for six); and strawberries ($28 per dozen). ★

Glenn Harrell is a staff writer for House Beautiful.

The museum logo now bestows a kind of cultural chic, and exhibits have inspired many a collector

A MUSEUM SAMPLER

Here, listed by city, is a guide to buying merchandise from the shops and catalogs of some of the nation's best-known museums:

ATLANTA
High Museum of Art
Catalog orders: 404 898-9251

BOSTON
Museum of Fine Arts, Boston
Catalog orders: 800 225-5592
Merchandise inquiries: 617 427-7791

CHICAGO
Art Institute of Chicago
Catalog orders: 800 621-9337

DEARBORN, MICH.
Henry Ford Museum
Merchandise inquiries/mail order:
313 271-1620 x313

HOUSTON
Museum of Fine Arts, Houston
Merchandise inquiries/mail order:
713 639-7360

LOS ANGELES
Los Angeles County Museum of Art
Catalog orders/merchandise inquiries:
213 857-6140; FAX 213 935-0278

NEW YORK
Metropolitan Museum of Art
Catalog orders: 800 468-7386;
FAX 718 628-5485
Merchandise inquiries: 718 326-7050
Locations outside New York City: The Mall at Short Hills, Short Hills, N.J.; Westerms Mall, Farmington, Ct.; Columbus City, Columbus, Ohio. Opening this fall: Costa Mesa and Century City, Cal.
Museum of American Folk Art
Merchandise inquiries/mail order:
212 496-2966
Museum of Modern Art Design Store
Catalog orders: 800 447-6662;
FAX 212 708-9891
Merchandise inquiries: 212 708-9888
The Whitney Museum of American Art: The Store Next Door
Merchandise inquiries/mail order:
212 606-0200

WASHINGTON, D.C.:
Smithsonian Institution
Catalog orders: 703 455-1700;
FAX 703 455-4843
Merchandise inquiries: 202 357-1826
National Air & Space Museum
Catalog orders: Same as Smithsonian

WILLIAMSBURG, VA.
The Colonial Williamsburg Foundation
Catalog orders: 800 446-9240
Colonial Williamsburg Gift-Accessory and Interior Design Shops, some freestanding and others within department stores, can be found in 78 locations across the country

WINTERTHUR, DEL.
Winterthur Museum and Gardens
Catalog orders/merchandise inquiries:
800 767-0500

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BY ROB RYAN

A SPIRITED IDEA

BANISH CANDLES, SNIFTERS—AND BRANDY BECOMES 'LIQUEUR OF THE GODS'

IN THE PECKING ORDER AT the formal dinner table, brandy seems to have drawn the short straw. Traditionally, it comes a long way down the list of events—after aperitifs, three or four courses of food a couple of wines, perhaps a cigar and coffee. When it finally does appear, it is often served in glasses that would give any self-respecting liquor agoraphobia—huge goldfish bowls that allow the all-important bouquet to evaporate into thin air. The final insult is warming the drink over a candle—a charming ritual, but one that drives off the more volatile constituents, killing the spirit once and for all.

It is a rare palate that can do justice to any drink fighting such a rearguard action: Perhaps that is what the English lexicographer Samuel Johnson was thinking when he wrote in 1779 that "he who aspires to be a hero must drink brandy." Much as I enjoy a brandy after a meal, I feel that the spirit deserves to be liberated from its end-of-the-evening ghetto, to be savored instead in a solo setting, as one might a single-malt Scotch. That is why giving a fine brandy is not tantamount to saying, "We know you like a slug now and then." In fact, brandy is one drink that, because of the olfactory pleasures it offers, is suitable for even the most abstemious of drinkers. The problem comes with trying to decide what exactly constitutes a brandy.

The word is derived from the Dutch word *brandewijn*, meaning burnt wine—burning is the old name for distilling, and brandy is the product of distilling a sharp white wine. Unfortunately, there is no legal definition of brandy, and a huge range of fermented products, many of them totally undrinkable unless your sole aim is oblivion, make claim to the name.

I define the quintessential brandy rather narrowly. The spirit must be made from grapes (excluding such wonderful drinks as the apple-based Calvados, plus some gruesome grappas) and must originate in France. Good brandies do come from elsewhere—Spain's Mascaro and Torres and Woodbury and RMS from the U. S., for example—but the French are not making idle boasts when they insist that the world's best brandy comes from their soil. Which leaves just one question—cognac or armagnac?

To many, the name Cognac, a small town in southwestern France, and brandy are synonymous. The town's warming drink became fashionable in late 17th-century London coffeehouses; indeed, two leading brands—Hine and Hennessy—were founded by expatriate Britons.

Under French law, a spirit may be called cognac only if produced from just three grape varieties—Ugni Blanc, Folle Blanche, and Colombard—and grown in the Charente

PHOTOGRAPH BY JOE HIMMEL

A TASTER'S CHOICES

Hankering after cognacs and armagnacs can be an expensive business. I recently came across a bottle of 1859 Dumareau armagnac for around $1,400. The best way to dip a toe into these treacherous waters is to frequent a good French restaurant with a well-stocked bar. Discovering fine brandies for yourself, rather than relying on recommendations, is much more than half the pleasure. Nevertheless, here are some you might want to request at such a restaurant:

COGNACS

Frapin Château de Fontpinot. A rich, powerful brandy from a small estate in Segonzac, in the heart of the Cognac region.

Delamain Pale and Dry. Not their most expensive product, but at least 25 years old and made in a style unchanged since the mid-18th century.

Denis-Mounie Edouard VII. So called because Denis Mounie was the preferred brand of Britain's Edward VII, renowned for his taste in brandy and cigars, this has been recreated from notes of the firm's chief blender in the 1890s.

Hine Family Reserve. One of the most respected of the majors, still blended by Bernard Hine and supplied to the British royal family; light, delicate cognacs are their specialty.

Croizet XO and vintages. The French government is so impressed with this company and its stock control that it is actually allowed to sell vintages. Worth seeking out.

Landed brandy. Shipped and bonded in Britain and bottled at a later date, so its age can be guaranteed. An excellent source is Berry Bros. & Rudd, 3 St. James St., London SW1; a good choice would be 1948 Hine Old Pale Cognac, landed 1949, bottled after 1980, about $140.

ARMAGNACS

Janneau XO or Domaine de Mouchac 1974. The company dates from 1851 and is one of the largest and most reliable in Armagnac. Its stocks of vintage armagnacs are enormous.

De Malliac Grand Bas Folle Blanche. A rarity—a brandy made only with Folle Blanche grapes. It explodes on the palate with a flowery intensity.

Gelas Hors d'Age. Twenty- to 25-years-old; traditional production techniques give a less alcoholic drink than is common today. The company also offers superb single-vintage Bas Armagnacs.

Phillippe Aurian XO or Hors d'Age. A newcomer (founded in 1900), this company produces lighter armagnacs, the XO rich and caramel-tinged, the Hors d'Age more refined.

Le Roy des Armagnacs. Roger Gimet is one of the region's most flamboyant gourmets and distillers, but he still has time to make a highly drinkable product.

and Charente-Maritime regions. The wine is distilled twice in copper pots, then stored in casks of Limousin or Tronçais oak. After aging at least three years, up to 70 cognacs are blended to produce what Victor Hugo—doubtless after generous samplings—called "the liqueur of the gods."

Owing to scandals back in the 1930s and '40s, when certain years were diluted with younger brandies, France has forbidden the sale of vintage cognac. They are all blends. The main guide to quality is a motley assortment of appellations: Three Star (contains cognacs three- to nine-years-old), VSOP (Very Special or Very Superior Old Pale, with the youngest ingredient five-years-old, but average age at least twice that) and the Old Liqueurs. The latter are the pinnacle of the cognaçais' art, with the youngest ingredient six-years-old, but normally based on 20-, 30- or even 40-year-old cognacs, and given such arcane titles as Grande Réserve, Extra Vieille, XO, and Napoléon.

Another clue to quality is where the grapes were grown. The best cognacs come from Grande or Petite Champagne subregions (not to be confused with the Champagne of northeast France). "Fine Champagne" indicates a blend from the two areas, with at least 50% from Grande.

Apart from such giants as Hine, Martell, Rémy Martin, and Courvoisier, reliable producers include Brillet, Château-Paulet, Chollet, Pierre Ferrand, and Moyet. However, part of the joy of brandy is finding for yourself some little-known producer that can outperform the big boys.

SOUTH OF COGNAC IS ARMAGNAC, often seen as the poor cousin when it comes to brandy, even though it began distilling two centuries earlier. The liqueur produced here differs in that the grapes tend to be more Folle Blanche and Colombard, it is matured in Monlezun wood, and the wine is passed around a continuous still. The final product is woodier, earthier than cognac. Unfortunately, young armagnac—the liqueur may be sold when only 18-months-old—is often very coarse.

However, because it did not suffer the same adulteration scandals as Cognac, Armagnac can offer peerless vintage brandies. Janneau's 1974 Domaine de Mouchac is a prime example. Favored subregions are Bas Armagnac and Ténarèze, and the finest armagnacs are again Napoléon, XO, or Vieille. Recommended firms include Janneau, Castaréde, Phillippe Aurian, de Maillac, and Sempé.

If you are lucky enough to receive a brandy of repute, remember that it should be stored upright (contact with the cork can spoil the liqueur). Note, too, that professional tasters use tulip-shaped glasses (small snifters are acceptable). When partaking, vary the distance between nose and glass to capture each strata of the complex bouquet. Finally, sip and roll the liqueur on the tongue—don't gulp. If the brandy is worth such effort, you will be well-rewarded. But even in Cognac itself, where the spirit's sobriquet *"eau de vie,"* the water of life, is taken very seriously, advertisements carry a caution: *"Dégustez avec modération."* You can enjoy a brandy *without* becoming a hero.★

Rob Ryan is a London-based journalist who frequently writes about food, wine, and travel.

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UFFERS' ELIGHTS

A golf nut's wish list for the links (no Bart Simpson headcovers, please)

FOR REASONS THAT STILL ESCAPE me, I got no golf presents last Christmas. No golf shirts, no head covers, no oversized golf balls filled with cheap whisky—nothing. Still, I was determined not to appear disappointed. "It's O. K.," I said to my family, gazing at my new Eddie Bauer long johns. "You know, I've been thinking about spending more time with you anyway."

Of course, this was a baldfaced lie, and it would come back to haunt me. A month or so later, at birthday time, my wife handed me a brightly wrapped gift. Tall and skinny, with a round ball at the bottom, it was clearly a fishing rod. I don't fish. "You said you wanted to spend more time with the family," she explained. "Fishing is something I thought we could all enjoy."

My heart sank like a waterlogged Titleist. Slowly, I began peeling off the wrapping, resigned to a summer of squirmy worms and dead fish. Then it hit me: It wasn't a fishing pole at all. It was a shiny new Taylor Made driver—a Burner Plus model with a 9.5-degree loft and a stiff shaft. I'd been had.

This embarrassing episode taught me two important lessons:

1. Properly wrapped, a driver looks exactly like a fishing rod.

2. Never say you didn't really want any golf equipment this year. Of course you did.

There's never any shortage of product. The golf-equipment industry is a factory that runs full speed around the clock, churning out hundreds of new gizmos every season. Many are just plain silly, such as the Sniper by Accu-Ball. This is a $5 golf ball painted with stripes of various colors. The stripes tell you if you're slicing the ball to the right or hooking it to the left. (Here's another, less expensive, way to tell: Watch your ball's flight.)

Some golf products are only sort of silly, such as the Sekisui Golf Score Mate, a $45 handheld computer that keeps all sorts of stats for 80 rounds. ("Say Bob, what's my putts-per-hole average at this course?") Then there are the products that appeal directly to golfers' true desires: clubs that hit the ball straighter, longer, or both. Take J's Professional Weapon.

This is the club designed by Japanese golf star Jumbo Ozaki (I am not making this up) and manufactured by Bridgestone. The J's, also known as the Jumbo Driver, comes in three varieties: driver, three wood, and five wood. Each retails for around $400, making it one of the most expensive clubs on the market. It's basically just a stainless-steel head on a graphite shaft; the trick is in the weighting, which results in extraordinary club-head speed. Although these clubs were the hot item of early 1990, their popularity waned as the year progressed. Turns out that—as is so often the case—the pros get a lot more distance out of the J's than average players.

When it comes to revolutionary club designs for the everyday hacker, Karsten Manufacturing pretty much wrote the book. Its Ping Eye 2 irons, in fact,

BY PETER FINCH

OTOGRAPH BY WILLIAM DUKE

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were so revolutionary that the United States Golf Association declared them illegal for tournament play a couple of years ago. They were said to impart an unusually strong spin on the ball, which makes it easier to control.

But starting in 1990, Karsten finally began making Pings that conform to the rules. So you can use them with confidence, knowing that a USGA official won't hop out from behind a tree and slap you with a penalty. The truth is, even the best players in the world won't notice a difference in the new version: To conform with the rules, the grooves in the clubface have been moved closer together by about half the width of a human hair. The new Ping Eye 2s, which can be identified by a tiny "+" sign on the back, start at about $675 for a set of nine.

THE HOTTEST NEW CLUB OF 1989, the Hogan Edge, remains as popular as ever today. Here's the way golfers describe it: Its clubhead is forged, as opposed to the investment casting method used by Ping and others, but it also has a cavity back and perimeter weighting. What this means: The forging process gives the club more "feel"—that is, you can really tell whether you're hitting the ball squarely—but it's weighted so that the ball goes relatively straight even on off-center hits. A set of nine Edge irons costs about $630.

Naturally, the Edge's success wasn't lost on its competitors. In 1990, a number of other companies rolled out similar clubs. Among them: Slazenger's Crown Sterling, Ram's Laser FX, Merit Golf's Fusion, the Toski Target, and Toney Penna's USA Forged line.

There's another bandwagon rumbling through the golf world, and with the popularity of the Senior PGA Tour, it's a wonder no one thought of this before: senior clubs. Designed for golfers over 55, they're lighter than most. Typically, they use graphite shafts and feature oversized grips, which many older or arthritic golfers prefer. One of the first companies to offer senior clubs is the aptly named Auld Golf Inc. of Concord, N. C. Its Auld Triax II line costs $600 for a full set. Merit has a similar product, the 250 Senior Classic.

As good as those clubs are, they're very high-tech—and that rubs some people the wrong way. Remember, plenty of golfers consider "old-fashioned" to be the ultimate compliment. Lucky for them, there's Bobby Jones. Jones was the 1920s and '30s golf superstar whom many consider the best player of all time. He won 13 major titles, all as an amateur. He also penned some terrific essays on the game, including one in which he described golfers—with unforgettable accuracy—as "the dogged victims of inexorable fate."

Though he died in 1971, Jones' reputation keeps growing. Lately his name has cropped up on balls, clubs, instructional videos, and even a line of price 1930s-style clothing made by Hickey-Freeman. My advice: Go for the videos. Sybervision sells an excellent collection of Jones' golf lessons filmed by Warner Brothers from 1931 to 1933. The man's advice is exceptionally concise, his velvety swing is a treat to watch, and there are some amusing cameos by Hollywood stars such as James Cagney and W. C. Fields. The two 90-minute tapes, marketed as "How I Play Golf" (didn't I say he had a way with words?), come with a booklet on Jones and the history of his Masters tournament. Retail price is $245.

Here's an idea for a golf-vacation gift. Now, remember that golf vacation packages are as common as divots on a driving range. By and large, they are all pretty much the same. But Idaho's Coeur d'Alene Resort has an attraction worth checking out: Its 14th hole, a par 3, features a 14,000-square-foot floating putting green.

Also on board this 5-million-pound vessel are two sand bunkers and five trees. Attached to cables, the green can be moved in or out in Lake Coeur d'Alene—anywhere from 75 to 175 yards from the tee. A ferry takes players from tee to green. Want to play the

Never say you didn't really want any golf equipment this year—
of course you did

oating green? The Coeur d'Alene Re-
ort Course charges $65 a round, in-
uding cart and ferry.

For less expensive (and considerably
ss dramatic) gift ideas, consult your
cal bookstore. Last year Doubleday
ublished a fine collection of short sto-
es about golf called *Perfect Lies*. It
cludes pieces by P. G. Wodehouse,
ohn Updike, and F. Scott Fitzgerald.
lso, Dell Publishing has re-released
olf in the Kingdom in paperback.
ichael Murphy's mystical classic,
hich concerns the author's spiritual
ssons from a Scottish pro named Shi-
as Irons, is every bit as entertaining
s it is bizarre. If it's instruction you
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orld's best golf holes. The tour guide
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rs will appreciate. Here are some
at they will not—or should not:

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istance from the hole.

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ag (golf's equivalent of the pocket
rotectors worn by nerds).

Balls or tees with the recipient's
ame on them.

Chairs or lamps shaped like golf
alls.

Any practice device that makes you
ook silly, such as keep-your-head-
own trainers with ropes running
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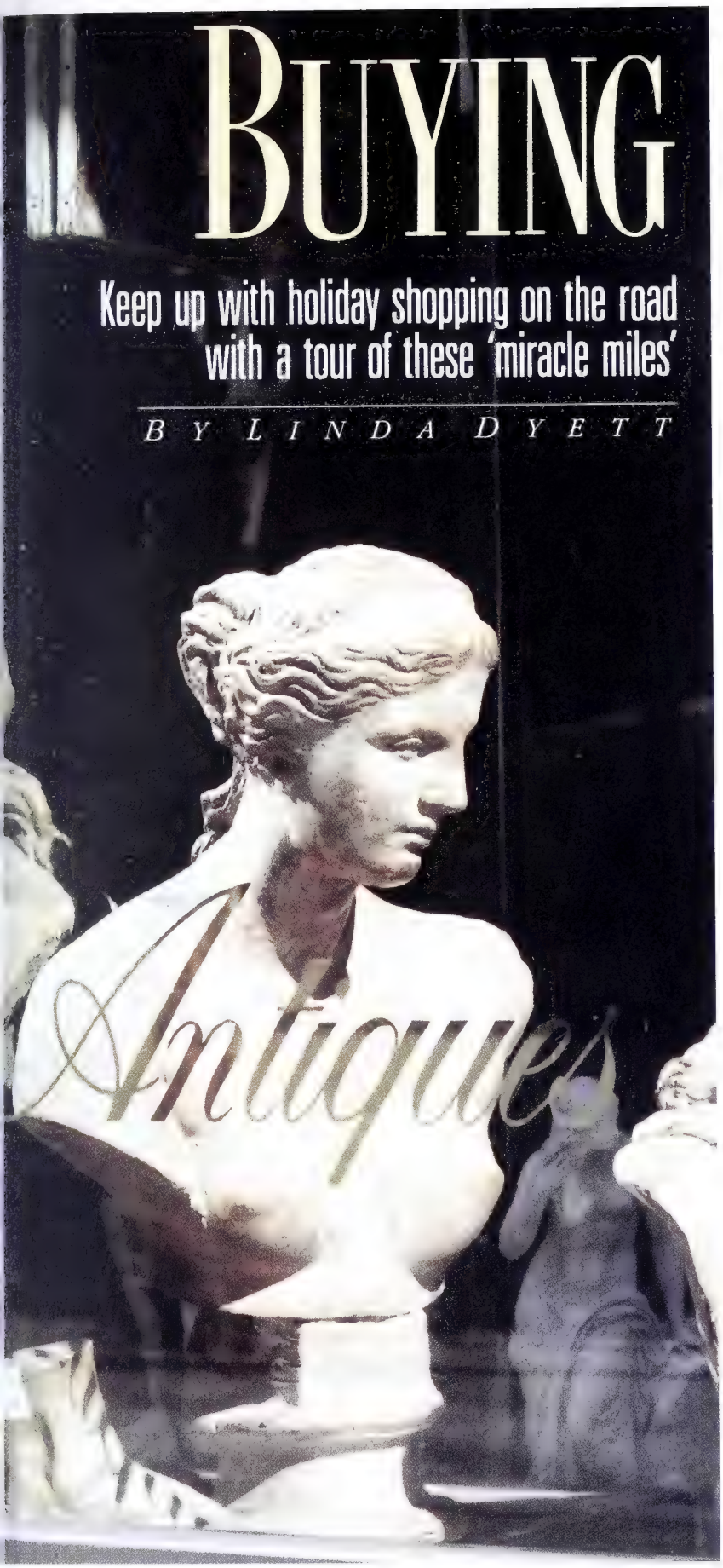
BUYING TIME

Keep up with holiday shopping on the road with a tour of these 'miracle miles'

BY LINDA DYETT



PHOTOGRAPH BY LARS KLOVE

BUSINESS TRAVEL IS RARELY fun—that's why they call it work. And when the holidays are rapidly approaching, a trip away from home seems doubly intrusive. To make the spare hours between meetings more productive—and more seasonal—we've compiled a guide to shopping in four frequent executive destinations: Chicago, Los Angeles, New York, and Washington. Despite the proliferation of suburban malls, these cities still have shopping streets in the grand tradition, within easy striking distance of downtown.

CHICAGO:

North Michigan Avenue

North Michigan Avenue, a.k.a. the Magnificent Mile, is still a thriving urban thoroughfare. Just north of the Loop, it offers more department stores—Neiman Marcus, I. Magnin, Saks Fifth Avenue, Marshall Field, Lord & Taylor, and Bloomingdale's—than most downtowns. The street also boasts high-end specialty shops. Anchoring the area is Water Tower Place, a glitzy seven-story mall. Some suggestions for shoppers:

Stuart Brent Books (*670 N. Michigan Ave.*) A wood-paneled, Persian-carpeted literary landmark for 42 years, specializing in psychology and art but encompassing a general range. Excellent shipping. Holiday special: wide selection of personalized Christmas cards.

Joy's Clock Shop (*835 N. Michigan Ave., in Water Tower Place*) A huge collection of amusing and serious watches and clocks, including models with revolving lights, neon, and Mickey Mouse. For terminal sleepyheads: persuasive talking robotic alarm clocks.

Shaxted (*940 N. Michigan Ave.*). Linens for bed, bath, and table, specializ-

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ing in luxury merchandise such as honeycomb bath towels, tone-on-tone bedwear in ultrafine cotton, and handmade embroidered items from Portugal.

Ultimo (*114 E. Oak St.*) The Midwest's prime source for advanced, mostly European fashion. Women's designers include Romeo Gigli, Issey Miyake, Valentino, and Ungaro. For men, there's Gaultier, Zegna, and Paul Smith.

LOS ANGELES:

Beverly Hills' Rodeo Drive

Rodeo Drive between Wilshire and Little Santa Monica Boulevards in Beverly Hills contains the world's richest, headiest stores. Prices can be stratospheric; styles run from diamond-studded denim chic to old-world elegance. Besides the specialty stores, I. Magnin, Saks Fifth Avenue, and Gump's are nearby. Some standout boutiques:

Christian Dior (*230 N. Rodeo Dr.*) The complete line of *prêt-à-porter* designed by Gianfranco Ferre is featured, plus lingerie, accessories, cosmetics, and scents. For men, there are shirts, ties, sweaters, and polos.

Fred Hayman Beverly Hills (*273 N. Rodeo Dr.*) The original Giorgio store, of *Scruples* renown, renovated and renamed. The accent is on jazzy international fashions, including designs by Karl Lagerfeld, Thierry Mugler, Oscar de la Renta, and Scaasi, for both men and women.

Louis Vuitton (*307 N. Rodeo Dr.*) America's most extensive selection of vintage-look Vuitton handbags and luggage. Suave and new: the Nomade collection for men, including an attaché, pilot case, and underseat carry-on in satin-like natural leather, from $3,200 to $3,400.

Bang & Olufsen (*369 N. Rodeo Dr.*) The street's sole purveyor of electronics—Danish-designed receivers, tape decks, TVs, VCRs, CD players, and speakers that are among the world's most coveted audio-video components.

Carroll & Co. (*466 N. Rodeo Dr.*) A gentlemen's clothier in business for 40 years. A favorite of Cary Grant and Fred Astaire, the store offers natural-shoulder suits and sport jackets, especially Scottish tweeds.

EW YORK:

Iadison Avenue

ı Manhattan, Madison Avenue above 7th Street is prime turf for designer-othing, jewelry, and objects for the ome. Traditional storefronts are still ıe rule—no department stores here .lthough Bloomingdale's and Berg-orf Goodman are moments away). he shops are pedigreed and elegant—ot cutting edge, but not conservative, ther. Here's a sampler:

ogal (*680 Madison Ave.*) One of the orld's greatest hosiery stores for men nd women. Styles for women include lain nylons in 115 lush shades and eal silk stockings. Men's over-the-calf nd ankle socks in cotton, silk, and ashmere-silk blends come in 20 colors, 29 to $185.

ıa Bagagerie (*727 Madison Ave.*) Imorts a vast array of French handbags hat are fashion-conscious outside, ell-organized inside. Don't overlook ıe well-designed pullmans, duffels, anity cases, briefcases, and attachés.

olo/Ralph auren (*867 Iadison Ave.*) ı converted man-ion, where ev-rything from loughwear to hower curtains ears the de-igner's label.

Books & Co. (*939 Madison Ave.*) Madison Avenue's most harming book lealer. An old-line generalist (though pen just 11 years), strong in literary lassics, foreign writers in translation, nd philosophical works.

Julian Graham-White (*957 Madison Ave.*) A storehouse of eccentric 9th-century European antiques: Regency tortoise-shell tea caddies, crystal able accessories, Grand Tour crocodile raveling cases, and walking sticks.

The Soldier Shop (*1222 Madison Ave.*) A wide range of old and new pre-20th-century-style lead toy soldiers, swords, nedals, helmets, military miniatures, nd do-it-yourself kits.

WASHINGTON, D. C.:

Wisconsin Avenue

Wisconsin Avenue, which runs from Georgetown north across the Maryland border into Chevy Chase, is turning nto a dynamic city-to-suburb shopping street with a mix of big "destination stores" (including Saks Fifth Avenue, Woodward & Lothrop, and Lord & Taylor) and quirky boutiques. You'll find lots of possibilities, especially for home furnishings, in Georgetown. Heading into Chevy Chase, posh wearables are the main draw. Best bets:

Britches of Georgetown (*1247 Wisconsin Ave. N.W.*) A menswear bastion favored by news anchors, politicos, and Redskins for its updated-traditional business attire and sportswear. Holiday gifts include Italian pottery, frames, watches, crystal, and food specialties such as six-packs of Clyde's Chili, a local favorite.

Appalachian Spring (*1415 Wisconsin Ave. N.W.*) One-stop shopping for American crafts—glass, pewter, quilts, and hand-forged iron fireplace sets. For the desktop: kaleidoscopes (over 100 of them), from $10 to $2,500.

Little Caledonia (*1419 Wisconsin Ave. N.W.*) Georgetown's oldest retail business—a miniature home-furnishings department store filled with unusual and useful kitchen items, lamps, china, stationery, and tabletop goods.

The Hugo Boss Shop and **Silhouette** (*1517-19 Wisconsin Ave. N.W.*) Interconnected men's and women's shops specializing in fashion-forward European clothing. Women's labels include Byblos, Moschino, Hugo Boss, Lolita Lempicka, and Angelo Tarlazzi. Hugo Boss, the sole menswear designer, does a classic continental look in everything from jogging suits to tuxedos.

Santa Fe Style (*1525 Wisconsin Ave. N.W.*) Southwestern country wares, including primitive furniture, pack saddles, hand-forged Pecos lamps, and tortilla presses. Christmas favorites: chili-pepper tree lights and wreaths.

Lori Ponder Ltd. (*5221 Wisconsin Ave. N.W.*) British country-style home accessories, half of them antiques, for every room in the house. Specialties: majolica, tole hat boxes, Victorian silver, and dried-flower arrangements. English wallpaper and antique cradles are among the hard-to-find baby goods.

Saks Jandel (*5510 Wisconsin Ave., Chevy Chase*) A ladies' specialty store that functions as the D. C. area's exclusive source for major-league international designers—Valentino, Yves Saint Laurent, Chanel, Lagerfeld, Montana, and Sonia Rykiel. ★

Linda Dyett is a New York-based writer who specializes in fashion.

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N THE PAST DE-ade, the boundaries between ome and office, work and play, ave virtually collapsed. The prolif-ration of cellular phones, answer-ig machines, laptop computers, and AX machines is rapidly turning the lanet into one vast sweatshop.

Fortunately, there are still people in ie business world who refuse to cave to this workaholic frenzy: people who istall fake cellular phones in their MWs; toy with golf computers camou-aged as vest-pocket appointment calen-ars during delicate M&A negotiations; ddle around with miniature model-train ets concealed in their briefcases while ieir employers think they're actually esting that new spreadsheet on their ISC-486 laptop. These are the people ho make up the executive toy market, nd without them, gadget sellers such s San Francisco's Sharper Image and lew York's Hammacher Schlemmer ould be in big trouble. They're not.

The word "toy" here refers to things hat are out-and-out fun and does not iclude such labor-intensive playthings s the programmable treadmill, the iso-inetic recumbent exercise bike, or the ortable chest maximizer. It also ex-ludes such nifty but noninteractive ems as the sun-tracking beach chair, he contact lens-washing machine, the eadache-relieving ice pillow, or the ul-rasonic hair-removal system. All of hese are fun to play around with, but one is actually a toy.

Hero Hoops is a toy. An electronic asketball game that can be hung from he back of any door, this battery-oper-ted contraption not only has automat-c digital scoring on a readout next to he hoop but also features a 90-second imer. Each time the harmless leather-tte ball flicks through the hoop, the basket activates a recording of several thousand fans going bananas, while over the raucous din can be heard a single admirer yelling "Good shot," or "Three-pointer!" The 16-by-24-inch unit, suspended by a pair of rubber-coated brackets, can be ordered from Sharper Image for $99.

Aficionados of more patrician sports have a whole array of toys to choose from. Foremost is ProGolf II's comput-erized golf course, a vest-pocket game that looks like a date book. Players can select from 14 different clubs on the 72-par, 18-hole course—modeled after fairways at such shrines as Pebble Beach. Even such elements as rain and wind are factored in. This gizmo, which can easily be concealed during board meetings and other tedious affairs, fetches $89 at Sharper Image.

High rollers may want to take a gan-der at the Las Vegas Casino Slot Ma-chine, a microprocessor-controlled one-

BY JOE QUEENAN

HOTOGRAPH BY AMY ARBUS

armed bandit that pays out up to 30 quarters on a single play. The unit, which measures 20-by-12¾-by-11½ inches and weighs 24 pounds, fetches $369 at Hammacher Schlemmer.

Harder to hide, but just as distracting, is Office Anglin'. This 20-inch-long rod and spincasting reel can be used by the avid fisherman to practice casting into his wastebasket. The kit, manufactured by Wannabe, of Berkeley, Calif., and selling for $19.95 at stores around the country, comes with an authentic lure and a sign for the office door knob that reads "Gone fishin' "—perfect for the executive who'd like to avoid the next race for a promotion.

PTIONS TRADERS

and folks who buy heavily on margin need all the relaxation they can get. The solution could be the Get-A-Way Chair, a leatherette recliner equipped with three massaging motors to comfort the back, neck, legs, or calves. Of course, no one shells out $1,995 for a seat that merely massages one's battered body; the chair also comes with a built-in AM-FM radio and cassette player with two speakers concealed in the headrest. Purists will doubtless hold out until Sharper Image offers a model with a CD player—or TV.

Another option for stressed-out executives is the WaterRower ($1,995 from WaterRower Inc. in Providence, R. I.). Unlike more conventional rowing machines, this item comes with a tank filled with swirling water, creating the sound of rushing waves. The ultrabusy executive can conjure up the sea without even leaving the office.

Burnout candidates also may be amused by the Relaxation Dream Medium, a pair of sunglasses hooked up to a headset with a handheld computer control. When one of 12 buttons is pressed, varying cycles of light patterns are dispatched across the inner surface of the glasses, while space-age sounds, synchronized with the brilliant lights, seep into the listener's consciousness from 15 to 75 minutes, depending on how much can be tolerated. This new-age thingamajig can be purchased from Hammacher Schlemmer for $350.

For lunchtime amusement away from the office—or in the corporate jacuzzi—many stores are selling remote-control speedboats, battleships, and hovercraft. Although Nikko America Inc.'s remote-control submarine ($189) is pleasant, it takes a back seat to the remote-control Cessna, a model airplane with a quiet electric motor that can climb, dive, bank, and land. The plane flies four minutes on a single charge, needs just 100 feet of space, and costs $299.95 at Hammacher Schlemmer.

The Las Vegas Casino Slot Machine pays out up to 30 quarters on a single play

Those with a more artistic bent might enjoy the Denonet Singing System. This device, originally popularized in Tokyo by tipsy Japanese executives, uses a double tape-player system to fuse a bathroom *heldentenor*'s voice with a prerecorded instrumental version of some famous song. This results in some of the most lethal renditions of *Hound Dog* and *I've Got to Be Me* in the history of recorded music. The system, which even allows the singer to adjust the key in which he or she wishes to croak or shriek, comes with three cassettes, including standards, Broadway hits, and rock-and-roll classics. It sells for $399 at Sharper Image, a sufficiently high price to deter most of the nation's worst vocalists.

For those of a more aerobic frame of mind, how about the jogger's radio headset? This self-motivating portable radio from Aiwa Co. can be used to supply extra bass whenever the runner approaches a hill or needs an extra kick to make it to the finish ("Chariots of FIRE!!!"). The unit weighs less than 4 ounces and sells for $45 at Sharper Image.

Oh, yes, the fake cellular phone and the briefcase train set. The former can be found in novelty stores all over New York, Los Angeles, and other cities where brokers and dealmakers abound, and sells for less than $20. The latter features a charming rural layout, expertly concealed inside a conventional attaché case, including bridges, houses, trees, cliffs, people, and the world's tiniest, oddest-looking cows. The train set, manufatured by miniature railroad specialists Marklin Co. and available at F. A. O. Schwarz, turns every single day of the year into Christmas. For $710, it ought to. ★

Joe Queenan is a New York-based freelance writer who owns neither a FAX *machine nor a cellular phone.*

When you closed the deal on the Barrington estate,
I was grateful.

When you made my son a summer associate in your firm,
I was quite pleased.

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made me very happy, indeed.

But when you gave my employees a Waterman for Christmas,
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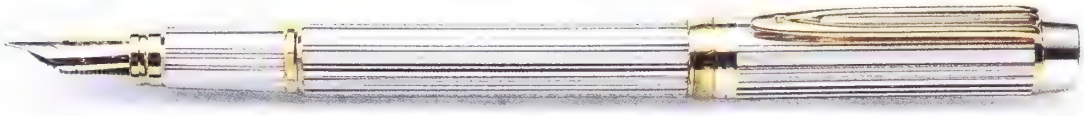

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IE HOUSES

TEEN SCREENS A-WAITING: CINEPLEX BORROWED BIG FOR AN UPSCALE EXPANSION, BUT IT RACKED UP A NINE-MONTH LOSS OF $57.9 MILLION

OMING SOON TO A THEATER EAR YOU: RECESSION

wer movie chains will be around when this downturn is over

t's film industry lore that during the Great Depression people streamed into movie houses to catch the latest 'x Brothers or Shirley Temple flick. r since, the maxim has been that as g as Hollywood dream factories sup- the escapism, movie houses won't fer much during hard times. So why movie exhibitors sweating?

or good reason. This recession will lifferent. Sure, new releases such as *Godfather Part III* and *The Russia use* may lure big holiday audiences. attendance is already off about 8% far this year, and the 1990 tally isn't ected to budge much past the 1 bil- mark—nor has it for years art). Worse, chains are reeling m a screen glut, after spend- millions to build multiplex aters in the 1980s. Small won- , then, that United Artists, eplex Odeon, General Cinema, AMC Entertainment are sell- or shuttering theaters.

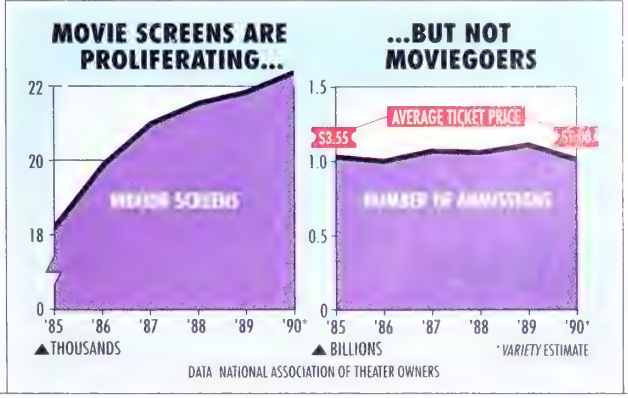
Aore woe may be in the off- . Swelling ticket prices, now a y $7.50 at some theaters in w York and Los Angeles, ld in themselves prompt more ks to stay home with their VCRs. And exhibitors are being pinched by studio demands for more favorable film rental terms. "There aren't a helluva lot of us making money these days," laments Frank Stryjewski, vice-president for operations at AMC Entertainment Inc. "We are all waiting for the shakeout to finish up."

When it does, the movie chains will be dominated by a powerful few. Consider that the top 10 chains accounted for only 27% of the nation's theaters back in 1985. Today, it's more like 55%. True, well-managed regional chains such as Carmike Cinemas Inc. in Columbus, Ga., with 974 screens, thrive by being the dominant player in smaller markets. But other small chains may not make it.

The big players are in jeopardy, too. Take Toronto's Cineplex Odeon Corp., the second-largest chain in North America, with 1,690-odd screens. During the late 1980s, Cineplex' flamboyant chairman, Garth Drabinsky, borrowed heavily to expand and go upscale, with arty interiors, marble floors, and cappuccino. Cineplex boosted prices. But costs soared faster, and cash flow withered. Drabinsky was ousted late last year. And on Nov. 15, the chain disclosed a nine-month net loss of $57.9 million on $455 million in revenues. It hasn't had much luck selling off venues either. So MCA Inc. and Montreal's Bronfman family, Cineplex' two largest investors, made a $100 million infusion to keep the chain from defaulting on its bank loans.

CARTOON RERUN. Of course, Cineplex isn't the only one beating a quick retreat. Back in 1984, General Cinema Corp. launched a $200 million expansion drive with the aim of growing to 1,800 screens from 1,000. Then, in October, the company said it would take a $30 million charge to cover layoffs and a reorganization of its theater division, which is expected to lose $11 million this year. The company will close or sell off 80 screens, bringing its total to 1,450. Explains a General Cinema spokesman: "Years ago, you could count on a 10- to 12-mile radius of exclusivity. Now, it's more like two miles."

To survive in the 1990s, then, chains have to stand out from the crowd. AMC, for instance,



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signed a one-year deal with W Brothers Inc. last year to run c cartoons from the studio's vast li before its main feature. At about its theaters, the chain now accepts it-card ticket orders over the telep It's also picking up some extra from its movie memorabilia boutiq

Other chains think they have fo sweet new revenue source in thea advertising, a $50 million market. plex now runs Coca-Cola Co. and A can Express Co. ads before some features. Yet market research by G al Cinema and others shows that moviegoers hate the idea. So muc that Walt Disney Co. and Warner B ers have insisted on no ads before films. True, there's a certain measu grandstanding going on here, what the legion of brand-name products pop up during feature films. "Di has a large and growing product-p ment business," says Terry Laugh chairman of Screenvision Cinema work, a movie theater ad company.

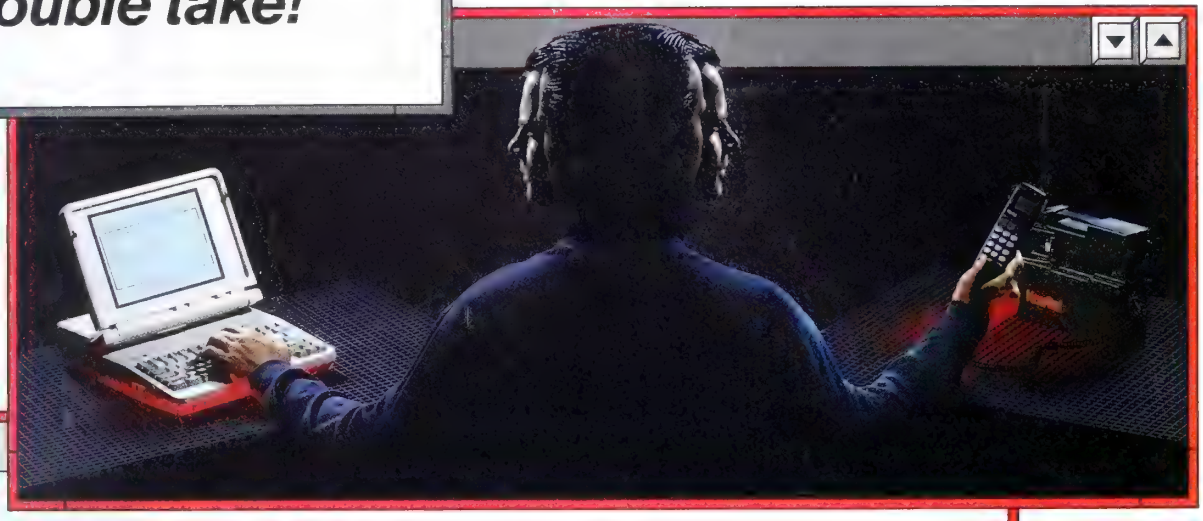
VIDEO MENACE. Hollywood is squee movie chains in other ways, too. Bec of the glut, theaters often have to for the hottest films. And it's not un mon for exhibitors to give up 75% to of the ticket gross (less theater op ing expenses) during the first coup weeks of a run. If the picture flops chains take a bruising. More troub studios now want 12-week guaran runs on big, as yet untested films as *Godfather III*. So are movie stu taking advantage of the exhibitors' p lems? "Oh, I don't think we would to comment on that," says a spokes for Paramount Communications Inc

Video rental chains certainly ha stake in the current turmoil. With of American households armed VCRs, exhibitors such as Cineplex United Artists argue that home v has created a loyal following for ce stars and boosted demand for first features during good times. Yet h video, not a factor during the 198 recession, will be a real wild card sh things get grim. After all, a $3 re looks even more alluring to those tight budget. "In a recession, it's a j ball," says J. Ronald Castell, senior v president for programming and r chandising at Blockbuster Entert ment Corp. At a minimum, thou home video will cut the chains' rep business.

For now, chains will keep shrink and hoping for blockbuster films. even if Hollywood delivers, this coul one recession that even Groucho M wouldn't be able to conquer.

By Brian Bremner in New York, Gail DeGeorge in Miami

A laptop deal that will make you do a double take!



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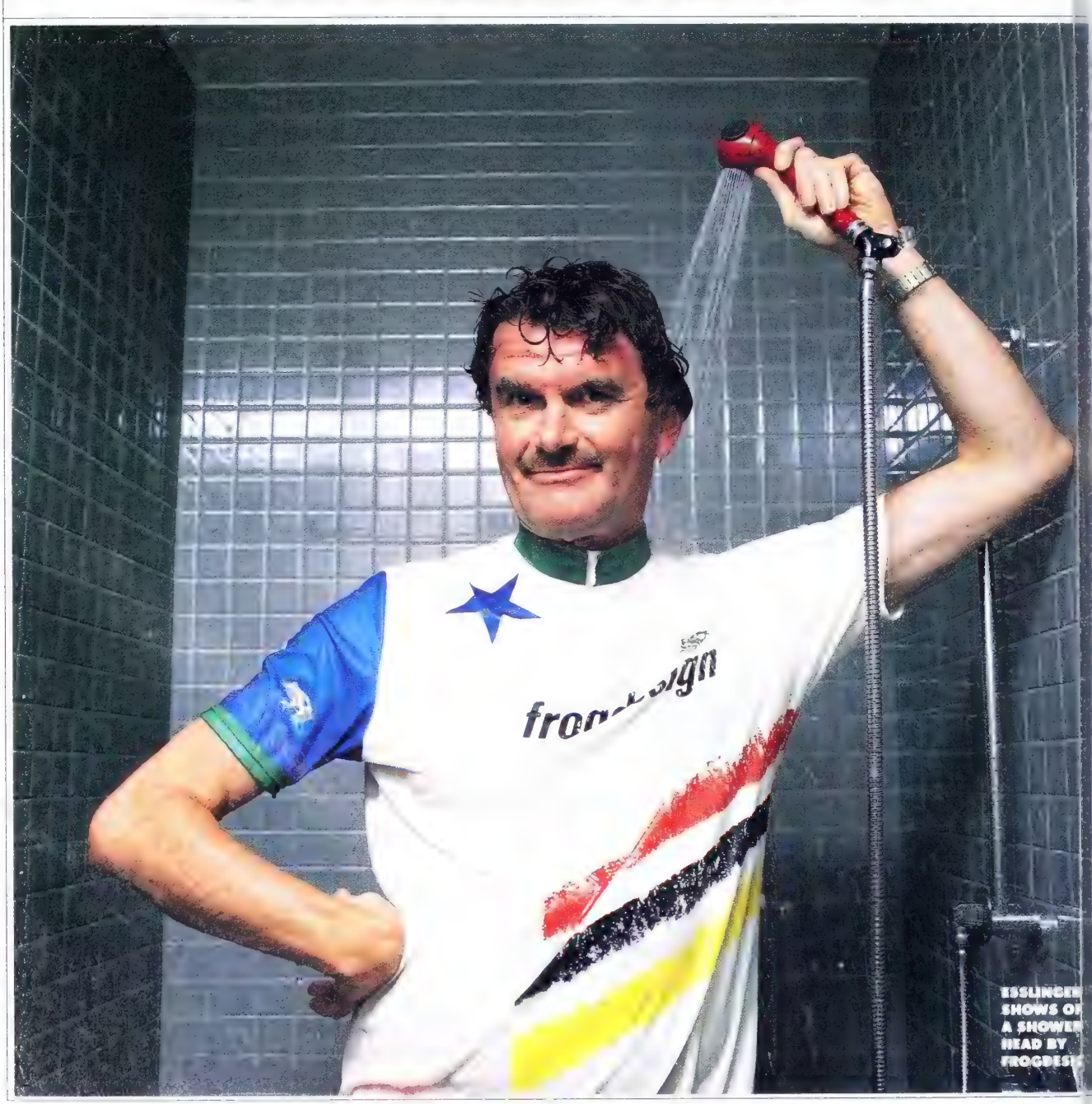
REBEL WITH A CAUSE

HARTMUT ESSLINGER REMODELS INDUSTRIAL DESIGN



ESSLINGER SHOWS OF A SHOWER HEAD BY FROGDESIG

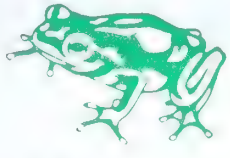
s 4 p.m., break time at frogdesign. A gh-spirited crew bursts into the de-gn firm's cafeteria and lunges for ourmet ice-cream bars. At a side ta-lient David Dubbs sits savoring a f coffee.

e boyish Dubbs can't contain himself talks about the edge-of-the-wedge ict that has brought him to the sun-enlo Park (Calif.) office: a digital e-answering machine the size of a back with the power of a personal uter. Dubbs hired the frogdesigners ve the product's outward look a pa- and pizzazz worthy of its sophisti- innards. The result simply blows away. Dubbs is convinced the ma- will be this Christmas' Nintendo e Boy—"a product that makes you n your car and drive because you've got to have it."

st another eager entrepreneur ning big dreams for his startup com- ? Uh-uh. Try marketing manager for rican Telephone & Telegraph Co.'s amer Products Div. in Parsippany, Dubbs could have taken his business y number of big East Coast design . But in picking frogdesign, Dubbs ved a path already well-worn by entrepreneurial hothouses as Apple puter, Sun Microsystems, and NeXT. easoning: "I wanted something ex-dinary."

ING EDGE. The extraordinary is what lesign is all about. While you may now the company or its flamboyant der, Hartmut Esslinger, chances are now its products: Sony used frog to pen the look of its Trinitron televi-; Apple had it get the pudgy, putty-ed Macintosh ready for the office cet. Frog has de- d luggage for Louis on and a small shop r for General Elec- Frog counts among stomers such giants M, Philips, Olympus, an Motor, and Mo- la. "Frogdesigned" ts, dental chairs, lot- nachines, and even s are all over Eu- . Sometimes, the 46- -old Esslinger just gns for the joy of it— as the extravagant white, and orange rcycle that domi- s his lunchroom.

iis fall, a new wave rogdesigned goods is ng out. There will be new products NeXT, Sun, and Emerald Systems. boldest item is a black supercom- r from nCUBE that's so massive and erful, it could make your heart stop. the small, intensely competitive de- world, frog (Esslinger insists on the lower case "f") is only a midsize firm. With offices in California, Tokyo, and Altensteig, Germany, it had 1989 billings of about $10 million. But Esslinger's impact is far bigger than his revenues indicate: Last year, by his calculation, products bearing frog's stamp racked up a stunning $15 billion in sales.



FROGDESIGN IS ONE OF THE MOST INNOVATIVE DESIGN SHOPS TO APPEAR ON THE AMERICAN SCENE SINCE THE 1930s

Esslinger has become the most influential industrial designer on the American scene since the 1930s, when Raymond Loewy stridently urged: "Never leave well enough alone." Esslinger has his own credo: "Form follows emotion." Chee Pearlman, associate editor of *ID*, an influential design magazine, praises him for getting the word out. "Hartmut has almost single-handedly raised the profile of design in this country," says Pearlman. Gushes Steven P. Jobs, founder of NeXT Inc. : "Frogdesign is the premier design company in the world."

There was a time when designers loomed as large in America as the industrial giants who hired them. Such men as Loewy, Walter Dorwin Teague, and Henry Dreyfuss helped make U. S. design a beacon for the world. They made their mark with bold designs for everything from Zippo lighters, Coca-Cola bottles, and bullet-shaped locomotives to John Deere tractors and Greyhound buses.

But along the way, the U. S. lost its design edge. By the 1980s, Europe and Japan were coming on strong while American companies became mired in marketing gimmicks and financial gamesmanship. The customer was often forgotten, and products became indistinguishable. Esslinger, who beats the drum for design excellence as loudly as he blows his own horn, is pushing American design back on track.

ESSLINGER DESIGNED STEVE JOBS'S NEXT COMPUTER "AS AN EXPRESSION OF REVENGE"

Good design is much more than just a stylistic flourish—it's a competitive weapon. By using design as a strategic tool, companies can get back to basics: making quality products that people need to buy. Crown Equipment Corp., for example, virtually opened up a new market recently when it built a forklift truck with the help of Fitch RichardsonSmith, an industrial-design firm. The Turret Stockpicker increased warehouse storage capacity dramatically by permitting loads to be stacked much higher. It created a need.

TYRANNICAL. There are signs that the design message is catching on. The much-lauded Ford Taurus is an example, as are some of the new minivans, such as the futuristic Chevrolet Lumina. The children's-products business is home to a number of smart new designs as well, including a new infant seat from Fisher-Price Toys that fits as snugly in a shopping cart as it does in an automobile. But Esslinger, a German native, asserts with some disgust that many big U. S. companies still "get the designs they deserve" (box, page 135).

Esslinger works his magic from a messy office, framed by a cluttered draw-

ROBERT H. MOHR

FROGDESIGN'S LOGO FOR LOGITECH "CAUGHT A GLIMPSE OF THE HEART OF THE COMPANY"

ONE OF ESSLINGER'S EARLIEST DESIGNS TURNS A DENTIST'S CHAIR HIGH-TECH

nCUBE'S MASSIVE NEW POWERHOUSE SUPERCOMPUTER EVOKES A SPACE-AGE ARCHITECTURAL MONOLITH

ing board and a gleaming piano. His business suit: jeans, a bright cotton shirt, and Birkenstock sandals. "They're so comfortable, they are worth any amount of grief people give you about the aesthetics," he says.

Esslinger can be charming and low-key, speaking so softly that a roomful of guests is forced to hang on to his every word. He can be volatile, as well. His impatience can even border on tyranny. "I've seen him have tantrums," says Paul Braund, a former frogdesigner who left recently to start his own shop. "There isn't much room for anyone else's view."

Esslinger makes no apologies for his demanding style. Nor does he feel uncomfortable about charging top dollar—up to 10 times what rivals ask. "If we can't make 40% profit pretax," he says, "we might as well be plumbers." Still, justifying the expense can be tough. The dramatic NeXT workstation, for instance, has been much more of a design sensation than a commercial success. Then, there's frog's work for Louis Vuitton. Although often marched out to show the studio's range, the Challenger luggage series, introduced in 1986, went nowhere.

BARE ESSENCE. Frog products don't have a single, recognizable look. Esslinger is not the father of any identifiable design movement, as is Ettore Sottsass, whose bold colors and shapes made him the leader of the Milan-based Memphis movement. Esslinger works with a wide variety of media, from glass and leather to high-technology plastics to software. He uses a full palette of colors. He specializes in high-tech products but also has designed kitchen towels, dolls, and sunglasses. Although he's a passionate advocate of environmental issues, they don't dominate his designs: His bathtubs may conserve water, but his dirt bikes don't exactly coddle a hillside.

What does define frog is attitu bald-faced appeal to the emotion of vice's role. Two examples: the come me friendliness of a Macintosh an oversize, comfy look of Esslinger's lerskates." With miniaturization and tal electronics, form doesn't have t low function anymore. Instead, Essl and his designers emphasize cultura text, human factors, or even raw em For example, frog can design Germa frigerators that are one-third the si American iceboxes. Why? German are packaged in smaller containers take up less space. But consider th posing black cube of a computer h signed for NeXT, whose founder ha been pushed out at Apple. The NeX chine, says Esslinger, "is an expre of revenge to a company that kille founder." That image was as impo an influence on his design as its bytes, and chips. Says Esslinger w

e: "I had in mind some vengeance.") Esslinger, the secret of a good de- is capturing a product's intangibles. ; as apt to ask prospective clients t their goals and dreams are as what products do. Says Bob Root, presi- of Emerald Systems, a San Diego puter company: "He's an amplifier of t the company wants to be."

bs used him that way in building Ap- In the early 1980s, Jobs was frustrat- nat Apple didn't have "world-class de- ." He sponsored a competition among t firms, mainly European, and Ess- er won hands down. The two volatile hit it off instantly. In 1982, Jobs d Esslinger, then based in Europe, to a shop in California. Jobs put frog- gn on a cushy $2 million-per-year re- er. "I wanted him to be a resource for f Apple," he says. "I didn't want peo- o worry about the meter running."

SHING SUN. Esslinger's chief contribu- at Apple was creating a unique de- language. It came to be called ow White"—a clean, crisp form with a y emphasis on ergonomic features made the computers easy for people se. Thanks to Jobs's patronage, frog rished. "They came here with a silver n, and they could always say 'no' " to eaucratic interference and compro- e, observes Robert A. Abler, vice-pres- t of rival design firm GVO Inc., with a of envy that's common to Esslinger's petitors.

sslinger parted ways with Apple after and CEO John Sculley had their infa- us split in 1985. Nonetheless, Ess- er's work for Apple made him a by- d in Silicon Valley. "Startups looked Apple Computer and realized one of reasons they were successful was de- n," says *ID*'s Pearlman.

rog's recent overhaul of Sun Micro- tems Inc.'s nerdy, space-hogging rkstation is a good example of Ess- er's growing reach. Sun Vice-Presi- t and co-founder Andy Bechtolsheim ne first to admit that Sun's first-gener- n boxes were a homegrown mess. ey were so big and noisy, people put m out in the hall and looped cables r their partitions," he says.

or a fee of $1 million, Esslinger's ps gave the workstation a cool grey ing and a trim physique. By carefully itioning air vents for cooling, frog ed pack the machine's central proces- into a unit the size of a pizza box in- ad of a floor heater. The machines k off. Sun sold $2.5 billion worth in 9. Bechtolsheim was thrilled. Now, all Sun's new products bear frog's stamp. e have made the products unobtrusive l yet beautiful," says Bechtolsheim. says we care about our customers."

rog is not alone in pushing companies ay more attention to look and feel. In- d, such West Coast design firms as

NO ANSWERING MACHINE EVER LOOKED LIKE THIS

When American Telephone & Telegraph Co. engineers showed Product Manager David Dubbs the digital workings for a snazzy new phone-answering machine, he felt sure it could be a blockbuster. Trouble was, getting it ready for this Christmas season meant Dubbs had to get the product designed, manufactured, and shipped in less than a year.

Dubbs turned to frogdesign, where tackling unreasonable deadlines helps the firm justify some of the highest fees in the business. Dubbs spelled out his needs to Design Director Daniel Harden in mid-December. Then he added, "We want mystery and magic in it."

The first two weeks of January, Harden and designer Paul Braund, who has since left frog to start his own firm, locked themselves in a brainstorming room. In sessions that dragged late into what frog employees call "0-dark-hundred hours," Harden and Braund noodled, doodled, and sketched the possibilities.

FINE-TUNING. As the choices narrowed, model makers joined in. The simple process of turning sketches into 3-D forms helps shape design issues. In the first model phase, white-foam forms are made, often assembled in hours by knife-wielding sculptors. By Jan. 15, Harden and Braund carried seven foam-model options, including one contributed by frogdesign Chairman Hartmut Esslinger, to a meeting with 15 AT&T manufacturing engineers in Indianapolis. The engineers pronounced the designs manufacturable. The stylistic elements wouldn't make the machine too difficult or expensive to produce. The clear favorite of the AT&T crew was Braund's vertical concept, which came to him when he glanced at the portable compact-disk player he had turned on its side on his desk to save space.

By Jan. 31, frogdesign showed Dubbs another of its secret weapons: a fully detailed scale model of the design. Early on, Esslinger invested in a state-of-the-art computer-aided-design system hooked up to a computer-controlled milling machine. Model makers sit at terminals in a dim room, precisely measuring specs. The push of a button sends instructions to a robot arm that carves out perfectly scaled model parts. Then, they are carefully painted with acrylic, making the models, which can cost $1,000 to $10,000, almost indistinguishable from the finished product. Often only when such a precise model is ready does a critical flaw or need for a change become obvious, clients say.

Design approved, it was time for six months of necessary drudgery. An appealing style is one thing, but it's another to pack in components and make sure the design works practically as well as visually. Harden became the liaison for Dubbs's manufacturing engineers, and together they fine-tuned the answering machine and changed dimensions slightly to accommodate the inner workings. There were changes: On top of the machine, for example, one of the buttons is blue—a deliberate visual cue to draw the user's eye to the most essential function, "play." Engineers raised their eyebrows, as it meant adding another tool to the manufacturing process. Dubbs backed frog.

AT&T'S 1337 ANSWERING MACHINE AND DESIGN DIRECTOR HARDEN

The machine is being manufactured in Taiwan now. It will hit AT&T Phone Centers in time for Christmas and sell for $139. "I had a vision and this is absolutely the right thing for us," says Dubbs, who is so satisfied that he hired frog to develop a follow-up product. There's one area, however, where even the creatively supercharged frogdesigners could not sway staid old AT&T: the product's name. Frog employees wanted to call it Flash. The phone company went with "AT&T digital answering system 1337."

By Joan O'C. Hamilton in Menlo Park, Calif.

Lunar, Matrix, ID2, Vent, Ziba, and Interform are considered among industrial design's most exciting and dynamic shops. Most of them fervently agree with Esslinger that purely functional design is out: "We design a user experience, not just the envelope the product comes in," says Jay Wilson, design director at GVO in Palo Alto, Calif. "That *ka-snick* you hear when a latch catches is engineered in."

But while most of Esslinger's competitors tend to be fairly low-key, often introspective designers, Esslinger crusades relentlessly for change. "Somebody must have the guts to take the banner," he fumes. "If somebody says Esslinger is too arrogant or too brash, fine. I'll take that."

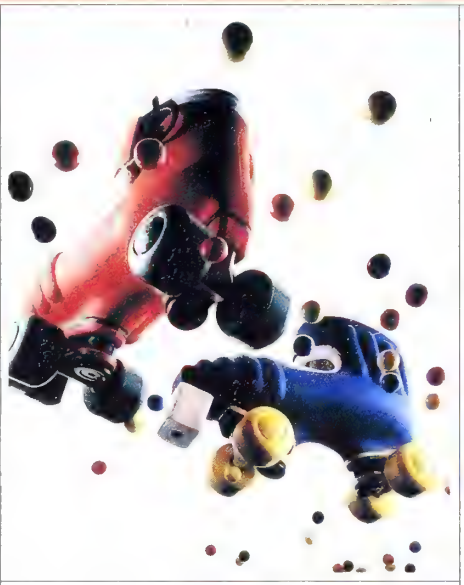
AD VANTAGE. So will plenty of clients. "He's a real showman, a real high ego," chuckles Robert I. Blaich, managing director of industrial design at Philips, who has hired frog to work for the Dutch electronics giant. Esslinger has ruffled competitors' feathers by buying splashy, full-page ads in the trade magazines glorifying frog designs that have never even made it to market.

Big egos are nothing new among brilliant designers. Loewy used to deliberately maneuver to the right in any photograph pose to ensure that his name would be mentioned first in its caption. Dieter Rams, the rigid design force behind Braun's distinctive, minimalist look in shavers, coffee makers, and other appliances, imperiously challenges Esslinger's claim to be cutting-edge: "It was only possible for frogdesign to do it because Braun had done it before," Rams says. "Braun has shown the way."

How do you feel about that, Hartmut? "I strongly disagree," he barks, furrowing his brow. "Dieter has the typical German idea of cleaning everything up. Who wants to be clean and quiet? My designs are screaming with emotions."

So is he. Emerald's Root says he has learned to never mention the World Cup to Esslinger, a fanatical soccer fan who can rant for an hour about the sport's triumphs and injustices. Esslinger lists his heroes as James Dean, Albert Schweitzer, and the captain of the 1954 German national soccer team—not necessarily in that order.

Esslinger grew up in a simple home in Germany's Black Forest region. After a stint in the army, he went to school to learn engineering but switched halfway through to design. He got his big break designing televisions for Germany's Wega, which later was acquired by Sony. That first television's crouching green form evoked a frog, the mascot of Esslinger's hometown of Altensteig.



FROG USES EMOTIONAL APPEAL IN ITS COMFY, COME-USE-ME FROLLERSKATES

He started his company with two partners, whom he later bought out, and then changed the firm's name to frogdesign when it incorporated in the U. S.

Lounging on the deck of his Los Gatos (Calif.) home, Esslinger is a contrast to the restless figure who prowls around his pressure-cooker studios. Although he's a multimillionaire, his California home, which he shares with a woman who works for frog, is modest. "I don't need much. Houses can be like glue, and I like to be free." One of his favorite possessions is his bicycle, which he likes to ride through the hills before work. "It's a privilege to own a racing bike," he sighs. "Well, there's also my watch collection, I guess, and my cameras."

Don't forget the gleaming white Porsche Carrera and the red Mercedes 300E, whose paint job he has touched up by hand to "make it more beautiful." Then there's the stunning black Bösendorfer piano in his dining room—it's one of four belonging to Esslinger, an accomplished musician. In his living room, [illegible] to an ultra high-end stereo sy[illegible] there's a custom Trinitron. Althoug[illegible] says his taste falls to health foods [illegible] simple fare, he eats lunch almost e[illegible] day at Palo Alto's tony La Postaia re[illegible] rant. Snickers a frog employee: "It'[illegible] only place around here that serves [illegible] clean, well-designed food."

ROUGH RIDING. Back at the frog pon[illegible] employees call it, Esslinger insists th[illegible] is most proud of the team he has [illegible] But turnover is high. Former emplo[illegible] say that's partly because of Esslin[illegible] high-handed style. He is known for a[illegible] ignoring some projects until the [illegible] hour, then showing up at a design r[illegible] ing and bellowing: "That's it! Do tha[illegible] and don't change a thing!" Either th[illegible] he calls for an overhaul. "He has a[illegible] credible image, and young desig[illegible] come from all over to work there," [illegible] another former employee. "You [illegible] you're part of a movement. But when[illegible] leave, you realize you were just invo[illegible] in the aggrandizement of an individu[illegible]

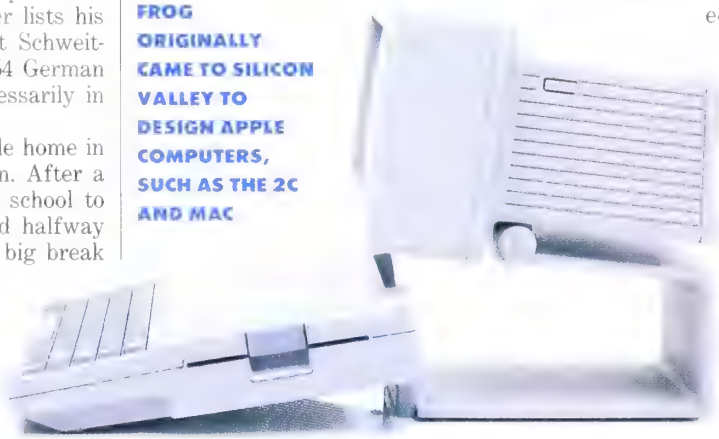
Esslinger's clashes are legendary. [illegible] has been battling Sony for years, fo[illegible] ample, for bragging rights to the W[illegible] man. Esslinger has said a small, port[illegible] stereo system was one of the idea[illegible] gave Sony in the 1970s when he [illegible] working on television designs. Sony[illegible] nies he had anything to do with it. [illegible] his exit from Apple was anything but[illegible] dial. When Jobs left, an Apple ins[illegible] says Esslinger's arrogance and insist[illegible] that engineers conform the product[illegible] his sleek packages "created lots o[illegible] will."

Esslinger admits he will go over[illegible] head of any middle-level manager [illegible] stands in his way at a client company. [illegible] we can't talk to the CEO, we're gone[illegible] next day," he snaps. "If the vision doe[illegible] come from the top, forget it." One Silo[illegible] Valley entrepreneur finally left the [illegible] pond, saying: "I didn't want to work [illegible] God anymore."

Yet Esslinger's fan club is every b[illegible] exuberant as his detractors are disg[illegible] ed. Some clients stop [illegible] short of reverie in des[illegible] ing their relations[illegible] Pierluigi Zappacosta, p[illegible] ident of nine-year-old I[illegible] tech Inc., which ma[illegible] computer peripherals, s[illegible] hiring frog to do a gra[illegible] logo "was the most mor[illegible] tous change we have [illegible] made." Frog, he s[illegible] "caught a glimpse of [illegible] heart of the company."

Esslinger has overreac[illegible] at times. He admits that [illegible] years ago, he became so [illegible] sumed with a new venture [illegible]

FROG ORIGINALLY CAME TO SILICON VALLEY TO DESIGN APPLE COMPUTERS, SUCH AS THE 2C AND MAC



e and sell high-end audio-video equip-
t, called frox, that he nearly ruined
. Some longtime employees walked
and Esslinger concedes he lost at
$2 million worth of business simply
use of his own distraction.
slinger also admits to pulling too
h capital out of the company. It hurt
design, which stumbled. Then he got
ffer to sell frog outright. Instead, he
d back from frox, and currently, he
w only a shareholder. "I had mis-
ed frog, but I learned what it was
worth," Esslinger says. "Now, I'm back 100%."

Frog's output and roster of new clients seems to prove it. Esslinger just signed a large retainer deal with Korea's Samsung that could be the fulcrum for an expansion drive into the Far East. He has had a beachhead in Tokyo for three years, recently set up a design outpost in Taiwan, and has his eye on Singapore. If he meets his expansion targets, Esslinger predicts, he will double his revenue base by 1995 and set up an East Coast shop as well.

"There's only one thing I'm suffering from," says Esslinger defiantly. "I don't have enough good opponents." That kind of talk is certain to infuriate his competitors and keep his bad-boy reputation intact. But love him or hate him, Esslinger clearly is raising the design consciousness of Corporate America. For that reason alone, his impact on the world of business goes far beyond vengeful computers and frolicksome rollerskates.

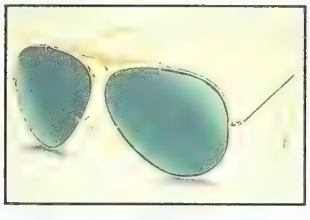
By Joan O'C. Hamilton in Menlo Park, Calif.

HE WORLD ACCORDING TO ESSLINGER: DESIGN DO'S AND DON'TS

ost consumers are barely aware of the products surunding them. Tools, toys, and transportation fade into e cluttered background of the material world. But when Hartmut Esslinger looks at products, they often set off passionate reactions. To him, form follows emotion. A sampling of what Esslinger loves—and loathes:

AZDA MIATA "I love it. s a wonderful translation of ft shapes from the '50s to e proportions of the '90s. In e '50s, it would have been eker, but now it's like a ubby child—much more notional, like the '90s."

IBM PC "Bland. Just a shame. It's not representing what its company should be. IBM's logo is classy, and it demonstrates what its products could be, but the design has no advantage over any clone."

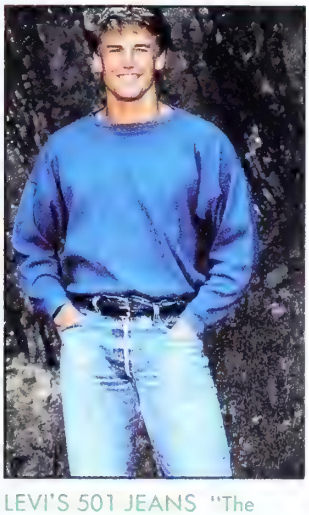


RAY-BAN SUNGLASSES (aviator style) "They have a drama and a competence because they were invented for the pilots. Vuarnets, I think, are just a little too mean. And Cartiers—just stupid. They have no design."

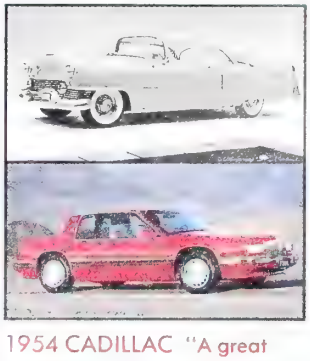
BRAUN RAZOR "I use it because I'm afraid of cutting myself. It's tactile. It has good technology."

OLEX OYSTER WATCH
It's a macho watch. It says elf-confidence, like a Porsche, ut if you don't have confi- ence, it's phony."

MAYTAG WASHERS "The company talks about quality, but the product doesn't say it. You don't want to touch it because it's so edgy and full of chrome panels."



LEVI'S 501 JEANS "The best American product ever. They're global and a symbol of freedom, ironically made for gold diggers."



1954 CADILLAC "A great statement of the fun of driving. Today's Cadillacs have no emotion. A monument to themselves. They're not dynamic, and you cannot imagine young people being joyful in them."

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MERGERS

MARRIAGE BECOMES BRISTOL-MYERS SQUIBB

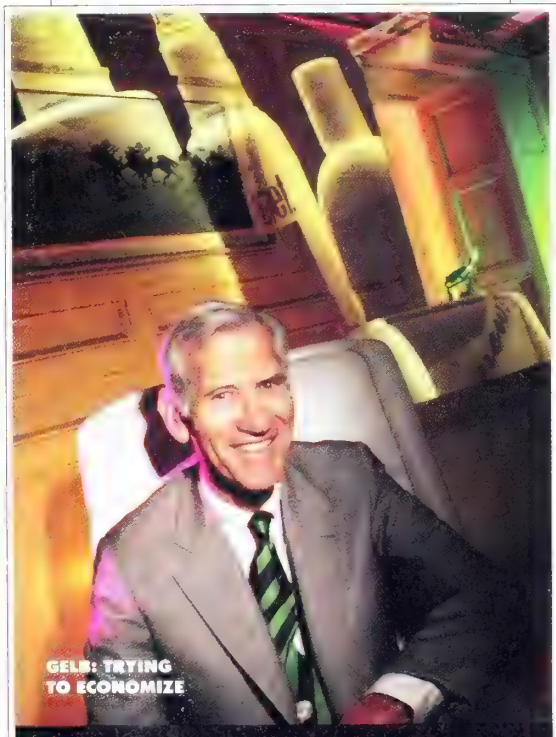
It still trails Merck, but it has strong products and a global reach

Last April, shortly after a merger that created the world's second-largest drug company, Bristol-Myers Squibb Chairman Richard L. Gelb addressed the company's senior pharmaceuticals managers. He acknowledged the tensions that had arisen and compared the merger to putting two bee colonies together in one hive. Do it too quickly, he said, and the two sets of bees will sting one another to death. Do it right, and the two colonies settle down and produce more honey.

The bees have settled down. The combination of the industry's former No. 12 and No. 14 companies has created a drug company that's close behind industry leader Merck & Co. and its $6.5 billion in annual sales. Bristol-Myers Squibb Co., with its newly combined sales force pumping up drug sales, should rack up pharmaceutical revenues of $5 billion this year. At 20%, earnings are now growing faster than at either company before the merger.

Still, the pace will have to pick up if Gelb is to fulfill his goal of making Bristol the industry's best and largest player. Bristol's 17.4% net profit margins are well below Merck's 24% and only about average for the industry, where the weak dollar is buoying profits. And although companywide earnings grew to $1.3 billion on sales of $7.6 billion through the first nine months of 1990, that growth rate lagged behind the results at Eli Lilly & Co. and Schering-Plough Corp.

WORLD VIEW. To boost performance, Bristol would have to sell its consumer-products group and become a pure-play drug company. Gelb says that won't happen, because consumer products provide diversity and balance. He intends to economize while capitalizing on the complementary strengths of the two companies. Squibb brought a powerful lineup of cardiovascular drugs and an 18% annual growth rate. Bristol-Myers was known for its strong over-the-counter and consumer brands, although it has made anticancer and anti-infection drugs for years. Overseas, Squibb was strong in Europe, the world's largest drug market. Bristol had a more limited international presence, mostly in Japan and Latin America.



GELB: TRYING TO ECONOMIZE

A GOOD FIT

BRISTOL-MYERS	SQUIBB
PHARMACEUTICAL MARKETS	
CANCER	CARDIOVASCULAR AILMENTS
INFECTIOUS DISEASES	DIAGNOSTICS
CENTRAL NERVOUS SYSTEM DISORDERS	ANTIBIOTICS
SKIN DISEASE	
OTHER PRODUCTS	
MEDICAL DEVICES	MEDICAL DEVICES
NUTRITIONAL	-OSTOMY PRODUCTS
OTC PRODUCTS	-WOUND CARE
CONSUMER PRODUCTS	VITAMINS
GEOGRAPHICAL STRENGTH	
U.S.	U.S.
JAPAN	EUROPE
LATIN AMERICA	

DATA: BW

Bristol's great strength now i[illegible] product lineup. The pharmaceuticals [illegible] has drug candidates to treat the le[illegible] killer diseases. The new compa[illegible] spending $745 million on research [illegible] development this year and has 8,800 [illegible] ple worldwide ready to sell [illegible] emerges from two major labs. Ex[illegible] drugs are already benefiting. O[illegible] drug sales rose 18% in the first [illegible] months over last year. "I think [illegible] merger's far better than I thoug[illegible] was going to be—and I thought it [illegible] going to be terrific," says Gelb.

Perhaps most important, the me[illegible] gave Bristol a worldwide orienta[illegible] Drugmakers increasingly need a g[illegible] market to recoup the steep costs o[illegible] veloping new drugs. Gelb has [illegible] solidated pharmaceuticals, [illegible] managed regionally at Bristo[illegible] ers, into a global operating g[illegible] like Squibb's. Overseas drug [illegible] are expected to reach $2.5 b[illegible] this year, up 27% from the co[illegible] nies' combined sales in 1989.

Besides marketing its d[illegible] around the world, Bristol is u[illegible] Squibb's global expertise to [illegible] drug development and regula[illegible] approval overseas. Pravachol, a[illegible] lesterol-lowering agent for w[illegible] the company has high hopes, [illegible] case in point. While the drug is [illegible] awaiting Food & Drug Admini[illegible] tion approval in the U. S., the [illegible] pany is preparing or has prep[illegible] drug applications simultaneous [illegible] 21 countries. "I think that P[illegible] chol will probably be a billion-d[illegible] drug," says Wayne A. Davi[illegible] head of Bristol's pharmaceut[illegible] and nutritional group. It's an [illegible] mate that's seconded by analys[illegible]

BULGING PIPELINE. Another pro[illegible] ing candidate waiting in the w[illegible] is Videx, an AZT-like drug for f[illegible] ing AIDS. Bristol licensed the [illegible] pound from the National Instit[illegible] of Health and has been testing [illegible] clinical trials since 1988. In a [illegible] move last September, the comp[illegible] got the FDA's go-ahead to exp[illegible] access to the drug. Besides [illegible] patients in clinical trials, Videx [illegible] also been made available to 1[illegible] additional AIDS patients, the lar[illegible] number of people ever given ac[illegible] to a drug that has not received [illegible] approval. Bristol expects to fi[illegible] new-drug application for Videx [illegible] the end of the first quarter of 1[illegible]

Altogether, Bristol has abou[illegible] dozen drugs in the pipeline nea[illegible] approval. It will need them: It [illegible] gets 25% of drug sales, or $1.2 [illegible] lion, from a single drug, Squi[illegible]

:en. The blockbuster antihyperten- will go off-patent in the U. S. in The company hopes that Monopril, :e-a-day version, will help pick up ıack.

: merger may have been a textbook –but it wasn't without friction. So ome 2,000 employees, or 4% of the have been laid off, and more jobs ı danger. Michael E. Autera, chief :ial officer, says Bristol plans to er half of its 60 pharmaceuticals ; worldwide, as well as 6 of 18 con- r-products plants, by the end of The moves, which should save the any about $800 million over three , will enable Bristol to eliminate ıdant facilities and upgrade remain- perations. But an additional 2,000 e could lose their jobs.

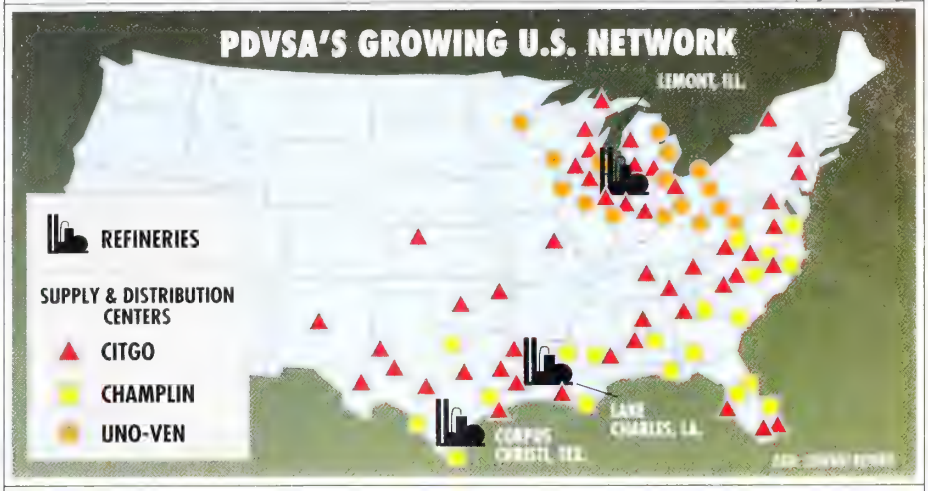
VERY BEST.' There has been some ıg over who's coming out on top in onsolidation, too. "The people who doing the choosing were the Bris- :ople, and they were choosing the e they knew," asserts one embit- ex-Squibb employee who worked : company for 28 years. Only four : combined company's top 36 corpo- ;pots went to former Squibb execu- "We had two very strong teams to with, and we picked the very best e from those teams," insists former ıb Chairman Richard M. Furlaud, ow president of the company, Fur- says he plays an advisory role.

ıt leaves Gelb running the show. A anky marketer who has worked at ompany for more than 30 of his 66 , Gelb joined Bristol when it ac- d Clairol Inc., where he was presi- in 1959. Bristol was long better- n for products such as Bufferin, drin, Windex, Drano, and Clairol. since becoming chief executive in Gelb used a series of shrewd prod- ıcquisitions and licensing deals to Bristol into pharmaceuticals big- –particularly in anticancer thera- It was in part a Bristol-Myers drug drove Gelb's own stomach cancer remission four years ago.

istol has a long way to go before it s the goal the drug group set for : "No. 1 by 2001." Industry leader k, with a 4.2% share of world phar- utical sales, has a healthy headstart veloping and marketing drugs on a ıl basis. Bristol, with 3.5%, is just ng started. And while Bristol's -sales force is now the world's larg- t ranks 13th in overall productivity. Virgil Baldi, a vice-president who :s closely with Merck as an execu- :ecruiter at Korn/Ferry Internation- New York: "You put two middles :her, and that doesn't make a top." ıake the most of this merger, Bris- bees will have to stay busy indeed.

By Bruce Hager in New York

OIL

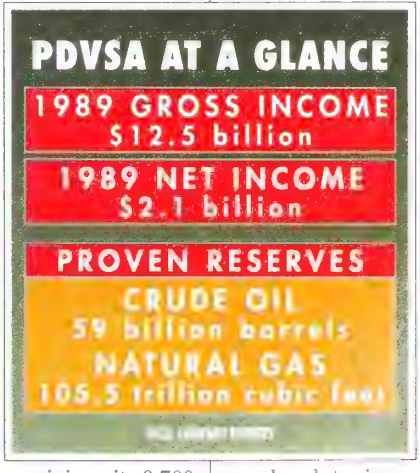


THIS OIL GIANT IS LOOKING PRETTY SLICK

Petróleos de Venezuela is loaded with cash—and ready to grow

As the standoff in the Middle East unfolded last August, oil experts began to tally up sources of crude that would be immune from Persian Gulf disruptions. In the Western hemisphere, no place shone brighter than Venezuela.

That country may have been overshadowed in the past by other OPEC members such as Saudi Arabia, but its 59 billion barrels of proven oil reserves put it sixth in the world, just ahead of the Soviet Union. The government-owned oil company, Petróleos de Venezuela SA (PDVSA), earned $2.1 billion on $12.5 billion in sales last year, and *Petroleum Intelligence Weekly* ranks it as the world's fourth-largest oil conglomerate. In January, it bought the half of Tulsa-based CITGO Petroleum Corp. that it didn't already have, giving it 9,700 service stations and at least 5% of U. S. retail gasoline sales. And now, with production from non-OPEC countries in decline, PDVSA is allocating some $20 billion to double its production by 1996 and increase its refining capacity as well. It's one of the most aggressive expansions by any oil producer, and one that makes sense: PDVSA provides up to 80% of federal revenues—some $7.2 billion last year—for one of South America's wealthiest nations.



To spur its growth, PDVSA is cautiously courting both foreign money and technological help, an approach that still treads close to heresy in a fiercely nationalistic country. Some politicians and Energy & Mines Ministry officials continue to be leery of sharing their country's resources and question how to square PDVSA's expansion plans with Venezuela's role as an OPEC co-founder.

BUSY PUMPS. The tensions were especially evident right after Iraq invaded Kuwait. PDVSA started to raise production by 15%, to 2.3 million barrels a day, then backed off as domestic critics called for it to hold to its OPEC quota. It later upped output after an emergency meeting of the cartel gave members the go-ahead to ignore previous production limits. But the tug-of-war highlighted the oil company's delicate plight. "PDVSA is a First World company caught in a Third World bureaucracy," says Venezuelan congressman Rafael Tudela, an Energy & Mines Committee member who wants to cut red tape by making the PDVSA presidency a Cabinet post.

How well PDVSA balances these roles will depend on Andrés Sosa Pietri, its

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new president and a former executive of an oil-equipment supplier. His February appointment by President Carlos Andrés Pérez to a two-year term was controversial, since Sosa Pietri did not come from PDVSA's ranks. The internal rancor waned some as the new boss embraced a growth strategy, but he continues to live on the edge. Early this month, Sosa Pietri told a Venezuelan congressional committee that PDVSA does not envision returning to OPEC's quota system next year—in part because it needs extra revenues to finance expansion. That put him at odds with Energy Minister Celestino Armas, who oversees PDVSA's plans and has said that Venezuela will heed OPEC quotas once the Persian Gulf crisis is resolved.

Assuming that Sosa Pietri prevails, he has a strong base on which to build. PDVSA was formed when Carlos Andrés Pérez nationalized 13 foreign oil companies in 1976, during his previous term as president. The new company was born with a solid infrastructure and a well-trained domestic work force. And over the next decade, it spent $4.5 billion building domestic refineries that could handle Venezuela's hard-to-process, high-sulfur crude. But it soon became clear that PDVSA would have to become an international company to secure markets for its crude and refined products and produce the kind of income the country needed. In 1983, it negotiated a refining joint venture in West Germany. Since then, it has added 50% stakes in five other refineries in Germany, Sweden, and Belgium. And in 1986, PDVSA bought into the U. S. market, paying $290 million in cash and crude for a 50% share in CITGO, then a subsidiary of Southland Corp.

LAKE MARACAIBO RIG: PDVSA NOW IS SEEKING FOREIGN PARTNERS

SOLID REFINERIES. Every move seemed well-timed. When crude prices broke and production income fell off in 1986, the profitable refineries provided stability. "We were thought to be either fortunate or prescient," says Angel Olmeta, managing director of PDVSA's New York-based U. S. operations.

Since then, PDVSA has snapped up Champlin Refining & Chemicals Inc. in Irving, Tex., which had 1989 revenues of $2 billion. Last year, it paid about $500 million for a half-interest in a Unocal Corp. refinery in Lemont, Ill., forming a partnership called UNO-VEN. With these moves, PDVSA raised its worldwide refining capacity to 1.3 million barrels a day. And it plans to become an even larger factor in the U. S., which already gets 11% of its oil imports from PDVSA. The company will fold Champlin into CITGO, creating a $7 billion subsidiary, and expand its U. S. service-station network to 11,000 by 1995.

PDVSA's domestic plans are even grander. They include an $8 billion drive to raise production capacity by at least 50% by 1996, to 4 million barrels a day. Since refined products provide higher margins than crude production, PDVSA will sink $6 billion into new refining capacity. It is targeting $6 billion as well to boost its petrochemicals business. And it has even slated $1.5 billion to develop a utility-plant fuel called Orimulsion, a blend of water and bitumen. PDVSA is selling it to utilities seeking to wean themselves from oil—saying converting to Orimulsion is cheaper than switching to coal. It is already used by utilities in Japan, Britain, and Canada, and Florida Power & Light Co. will start testing it at its Sanford plant in January.

PDVSA sees its sales gro from 50,000 barrels a d 500,000 barrels by 1995.

PDVSA will finance mu this growth itself. It ex revenues to rise 12% year, to $14 billion, and industry watchers think added sales might relie pressure on PDVSA to foreign help. But other the company will still outside expertise to de natural gas reserves an grade its refineries to pr extra-heavy crude from Orinoco region in ea Venezuela.

In recent months, P has been in contact wit foreign oil companies. Te Inc., for one, will open a cas office this year to ex moving Star Mart co nience stores and Star auto-service centers into ezuela. Talks aimed at le Texaco and others help op extra-heavy crude rese are still preliminary as but the fact that discus are being held is seen sign of progress. "It is a plete change from where have been for the las years," says C. Robert B president of Texaco's America-West Africa divi

Would-be partners are ing a hard bargain. Most want to s output or profits in return for tech and financial help. Unless PDVSA o such terms, companies aren't "goi fall all over themselves to get there for a deal," says John S. He an oil consultant in Greenwich, Co

An even stickier problem for Sosa tri is to find a way to make deals out reigniting nationalist sentiment test will come early next year, Venezuela's congress considers a $ lion joint venture between PDVSA's L ven unit and Exxon, Mitsubishi, Shell to develop natural gas rese The project touches on a law restri foreign involvement in energy proje

Even if that deal is approved, Pietri will not risk an uproar by see a broad policy mandate for such tures. Rather, he will try to nego individual agreements. The com says it can be flexible. "PDVSA wan be a world-class company," states E. Giusti, its corporate planning co nator. Even if its president has to w tightrope to make that happen.

By Gail DeGeorge in Miami and Charters in Caracas

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BOEING

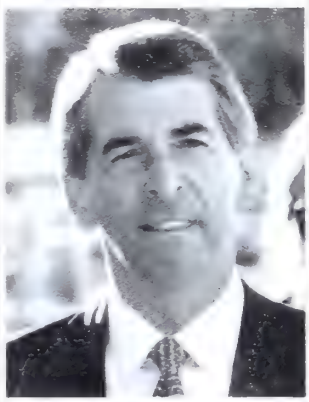
WHY SILVERADO BOUGHT THE RANCH

Allegedly cozy land-for-stock deals may have inflated its assets

With Pike's Peak soaring in the distance, the windswept hilltop known as Piney Creek East was a promising site for new residential housing. The tract of brushland already was flanked by upscale developments. And it was just 20 minutes from downtown Denver. No wonder officers at Silverado Banking, Savings & Loan Assn., the Denver thrift that bought the land, thought it was a great investment.

Six years later, however, Piney Creek remains vacant, and Silverado is out of business. Regulators say the purchase of the 66-acre site represents a lot more than an aborted real estate investment. They claim it was part of an elaborate and potentially illegal pattern of horse-trading with developers. By swapping its stock and other securities for real estate from the developers, regulators assert, Silverado may have artificially inflated its financial position. Federal investigators have been exploring whether the schemes ultimately helped cause Silverado's demise. Indeed, some investigators feel the deals may have done a lot more harm to the thrift than the well-publicized losses on loans to business associates of former Silverado Director Neil M. Bush. What's more, such seemingly sweetheart deals were common in the S&L industry and may have been a major cause of the thrift debacle.

MDC HOLDINGS HEAD MIZEL



FORMER SILVERADO CHIEF WISE

NO SECRETS. Piney Creek is one of a number of transactions under scrutiny in a criminal probe of the thrift's failure, spearheaded by Denver U.S. Attorney Michael Norton. A 1986 report by federal thrift examiners shows that the same day Silverado, through its investment subsidiary Silverado-Elektra Venture Corp., bought Piney Creek from Denver homebuilder MDC Holdings Inc. for $6 million, the thrift sold MDC $6 million of its preferred stock (chart). In effect, say regulators, Silverado built capital by exchanging preferred stock for real estate. MDC Chairman Larry A. Mizel declined to comment, but a spokesman for MDC says it accurately recorded its deals on the books and never tried to conceal anything. No charges have been filed against MDC.

These transactions seemed tailor-made for Silverado. Eager to grow, the thrift made loans and bought land as if the booming Denver real estate market would last forever. The deals with developers helped maintain the thrift's feverish lending pace. A thrift's lending ability is tied to its capital base. Under federal rules at the time, the injection of capital via preferred stock from the Piney Creek deal alone enabled Silverado to issue nearly $200 million in new loans.

Whether the alleged backscratching was illegal is far from clear. Regulators approved the Piney Creek deal and others. But investigators now suspect that many of the deals were swaps, mere bookkeeping transactions in which little cash changed hands. "At the end of the business day, everyone was in the same position as earlier, but the accounting entries made the institution look better," says a Federal Bureau of Investigation agent. Silverado and its business associates may have violated the law if they recorded the deals in their financial statements as unrelated purchases and sales. If Silverado intentionally misled regulators,

THIS 250-ACRE PARCEL OF VACANT COLO

thrift officials who knew about it s
be prosecuted.

Regulators discovered the tras
tions during their examinations b
Silverado was seized in 1988. But
recently have investigators come t
derstand the extent of such deals a
explore the motivations of Silverad
ecutives. The government is stu
whether the capital created by the
was just a mirage. When the th
fortunes began deteriorating becau
mounting loan losses, regulators
Silverado may have used the dea
conceal its financial condition.

SMOKESCREEN? To make matters w
the practices delayed federal acti
shutter Silverado. Although regu
questioned whether Silverado wa
derstating losses as early as 1986,
held off taking action because o
apparently hefty capital on the th
books. By the time the governm
seized Silverado in 1988, the cost o
shutdown had reached $1 billion.

Neil Bush voted to approve ma
the alleged backscratching transac
In a deposition related to administr
charges filed against him by the O
of Thrift Supervision, he confirmed
he was aware that part of the pro
of Silverado's land purchases wou
reinvested in the thrift. Said Bush:
recall that there was a lot of busi
done on that basis." The President'
is contesting the OTS charges, whi
lege that he failed to disclose adequ
his business ties with Denver real e
developers Kenneth M. Good and E
Walters, who cut many deals with

F ONE COMPLICATED MDC-SILVERADO DEAL THAT THRIFT REGULATORS ARE SCRUTINIZING

o. Bush declined to comment, as ther former Silverado executives nembers of the thrift's board.

ported quid-pro-quo deals, accord- the 1986 thrift-examination report, fueling Silverado's growth as ear- 1984. Regulators at the time re- d thrifts to hold capital reserves st loans at a 1-to-33 ratio. For each of capital raised by securities to developers, the thrift could roughly $33 in loans. From 1984 gh 1986, the thrift d at least $50 mil- in new capital gh these transac- according to the examiners' report. ado's assets near- ubled, to $1.8 bil- in that period.

e 1984 Piney Creek which MDC says Silverado's idea, fairly typical of arrangements. It ed to make sense both companies. bought stock in appeared to be a st thrift and ulti- ly received about illion in dividends, ding to MDC. And t regulators con- d in a 1985 memo- um that the $6 mil- Silverado paid for Creek was rea- sonable. Still, one thrift regulator likens the transaction to "trading a dead cow for a dead horse."

In 1986, Silverado and MDC did another deal similar to Piney Creek. On June 30, according to a 1986 examiner's report, MDC sold Silverado its Chambers-Tower subsidiary, a company that held both mortgages and raw land, for $37.8 million. As part of the deal, Silverado also obtained a vacant 250-acre parcel known as the Upland property. Silverado paid $20.7 million in cash. MDC then knocked $6.7 million off the price. In the end, Silverado owed MDC $10.4 million. On the same day, MDC purchased $14 million worth of Silverado's subordinated debt. But the thrift discounted the purchase price to $10.4 million.

RICH DEALS. MDC wasn't Silverado's only alleged swapping partner. Starting in 1984, developer Walters and his partnerships bought $27 million of preferred and common shares from Silverado's holding company. Silverado, in turn, acquired several properties from Walters. On Dec. 31, 1986, according to the 1986 examiner's report, Chambers-Tower, then a Silverado subsidiary, bought Walters' Guaranty Bank Building in Denver. Walters used part of the proceeds to buy 830,000 shares of Silverado's holding company for $8.3 million.

Examiners also have uncovered evidence that former Silverado Chief Executive Michael R. Wise received the proceeds of some of the holding company's stock sales as a personal loan, which he never repaid. On June 30, 1986, a Silverado unit paid $16.5 million for stakes in two real estate investment ventures controlled by Silverado and Walters. The same day, Walters' businesses purchased 140 shares of Silverado's holding company for $6.8 million. Using some cash from the stock sales to Walters, say regulators, Silverado made loans to Wise totaling $1.45 million. Walters and Wise declined to comment. In the 1986 report, Wise denies any wrongdoing.

Although many of the deals were approved by regulators, that might not be enough to get Silverado off the hook. Regulators approved Silverado's sale of subordinated debt to MDC in June, 1986, because the thrift committed itself to using the proceeds to invest in home mortgages, according to the 1986 examiner's report. Silverado, however, also used the money to invest in land held by Chambers-Tower. Investigators say this is not the only example of duplicity. They eventually hope to prove that Silverado's fast-growth strategy was as empty as the Piney Creek landscape.

By Catherine Yang in Denver

INSURANCE

NEW LEMONS FROM THE AUTO LOT

Worthless extended-service contracts are rear-ending car owners

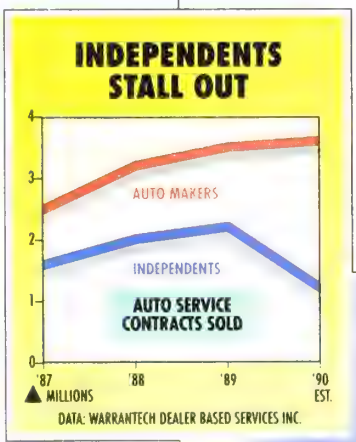
When the air-conditioning on his spiffy Mercedes 300D conked out in July, 1989, Stephen P. Havasy didn't even blanch. The $1,072 repair bill didn't faze him either. After all, his extended-service contract would pick up the tab, right?

Not if the company that wrote the contract is no longer around. Havasy had no hint of difficulty when Autotech Services Inc. told him over the phone to take the car to the shop. But when he sought reimbursement, he discovered that Autotech's 800 number was disconnected. He wrote to its last-known address—a post office box in Duluth, Ga.—but the letter went unanswered. His service contract, for which he paid $450, is worthless.

Autotech is just one casualty of a shakeout in the extended-service-contract industry that has left many people, such as Havasy, in the ditch. The carnage is wiping out some marginal companies. But it also is eliminating legitimate operators who provided healthy competition to the major auto makers, which dominate the $9 billion-a-year business. The independent contract writers compete by charging as much as $100 less than the auto makers—and usually by offering car dealers, who sell the contracts, fatter profits, too. At a time of shrinking margins on auto sales, peddling service contracts is among dealers' most profitable activities.

CLOSING SHOP. About one-third of all car buyers sign up for service contracts, which cover repairs for one to four years after the manufacturer's warranty expires. The contracts were first offered in the late 1970s, when auto prices began to spiral upward and perceived auto quality started to drop. Independents pioneered them, but the auto makers were quick to follow suit. There is little difference between what an independent's and an auto maker's contract covers. The auto makers' edge is that they have greater financial resources to weather bad times.

Like now. Ebbing car sales and climbing repair costs are hitting the independents hard. Fifteen of the estimated 100 independents have folded in the past three years. According to Warrantech Dealer Based Services Inc., a Euless (Tex.) independent that also tracks the industry, the independents' market share for new contracts in 1990 will be down to 25% from 40% in previous years (chart).



Also stuck are the dealerships selling the contracts. Trying to limit customer ill will, the dealers often pick up at least part of the repair tab: Herb Gordon Autoworld Inc. in Silver Spring, Md., agreed to fork over $400 to Havasy. But the dealer refused to cover the entire $1,072, arguing that Havasy was overcharged. Sometimes dealers can get relief from insurers that underwrite the independents' contracts. But most of those going bust, including Autotech, have no underwriter.

Even when companies that go under have insurers, it's often a hassle t lect. Insurers typically want ext documentation for claims and are to pay. David W. Wilson, own Toyota of Orange Inc. in Orange, a gripes that Republic Insuranc wants to see oil-change receipts if a er window fails, although oil has n to do with window maintenance. A ecutive with Republic denies that "nickel-and-diming" claims and say only prudent in demanding evide proper upkeep.

This mess has given the auto m a terrific opening to exploit. Gener tors Corp. is the most aggressive, ing a print-advertising campaign t ing dealers. The ad copy begins: " those other guys are making you Chapter 11, the General Motors P tion Plan has written an exciting story." Warrantech projects tha though the independents' sales plummet this year, the auto makers ume will hold steady.

OVERCHARGES. The car-buying p could suffer if an industry sha leaves the field to the big players their higher-priced contracts. Overc ing for these contracts is already a ous problem. A probe of auto ma contracts by New York Attorney G al Robert Abrams spring found that de frequently charge exce prices. One Chrysler d billed a customer $1,62 a contract even thoug wholesale cost to the d was $125. With fewer l cost alternatives avai from independents, this ation could grow worse

Beyond that, the col of many independents brought about greater ticism toward the entire vice-contract industry. Gillis, an official with Consumer Federatio America and author of *Car Book*, a guide to purchases, grouses most contracts don't c such key items as br shock absorbers, batte and windshield-wiper bl

Still, the contracts h strong appeal, because motorists being zapped by sudden repair Shelling out ahead of time has the v of eliminating nasty surprises. B driver who doesn't choose the right vice-contract provider may end up w nasty surprise anyway.

By Larry Light in New York, wit reen Seebacher in Detroit and Larry strong in Los Angeles

MERCEDES OWNER HAVASY: HIS INSURER WENT BELLY-UP

Commentary/by Judith H. Dobrzynski

IF STOCKHOLDERS BANG ON BOARDROOM DOORS, OPEN 'EM

When Martin Lipton talks, chief executives usually listen. This time, however, you to wonder if they will—even gh it's for their own good.
pton, senior partner at Wachtell, on, Rosen & Katz, is a legendary iselor to companies that fear being raider-bait, and probably the nchest defender of corporations er siege from takeover artists. The er of the poison pill rarely wavers is support for management. Even oncedes: "I only work for manage- t. Otherwise, I'd have a much more ral position."
) it seemed a bit startling when, at ecent panel on corporate gover- e, Lipton advised management to he unthinkable: allow shareholders the boardroom. Discuss- a hypothetical case—in- ing a controversial for- investment—Lipton iseled the chief executive er to let a major share- er make his case against investment decision di- ly to the company's board ibers. Most CEOs would er drink hemlock.

LIZED.' That Lipton would e such a recommendation ws just how much fer- t there is in corporate ernance. As financing for overs, the ultimate check management, dried up the past year, many s looked forward to a re- to the good old days. agement would manage, if shareholders didn't like hey could sell their stock. But res- institutional investors no longer it to take that "Wall Street walk." d of being blamed for having a t-term outlook, they, and experts as Lipton, are groping for ways ix the system. Since proxy resolu- s haven't produced results, they focusing on the boardroom, where ide directors are supposed to rep- nt stockholders' interests.
hat's the theory, anyway. In prac- , most directors hew to the CEO's , in part because he put them on board, in part because he controls board's agenda and the information v. A shareholder's voice in the rdroom would threaten that cozi- s. Still, Lipton says he has given such advice to about a dozen clients in the past five or six years—mostly in takeover situations. "The whole concept that some companies have of not dealing with substantial shareholders on substantive issues is just wrong," he states.

Lipton's view pleases some shareholders. "It's a good idea," says Paul E. Tierney Jr. of Gollust, Tierney & Oliver, which as Coniston Partners tried to change corporate policy at both UAL Corp., then known as Allegis Corp., and TW Services Inc. At TW, Tierney says, "we pleaded with the board to let us meet with them," to no avail. Coniston ended up buying TW. As for Allegis, it did abandon the travel-supermarket concept that Coniston and other shareholders opposed, though that didn't prevent it from becoming a takeover target as an airline.

LIPTON: EXCLUDING MAJOR SHAREHOLDERS 'IS JUST WRONG'

Sarah Teslik, executive director of the Council of Institutional Investors, also likes Lipton's proposal. "If you want shareholders to behave as owners, you want to create inexpensive, nonconfrontational ways for that to happen," she says. "It beats putting something into 500 words on a proxy statement"—which is all the current shareholder-access regulations require. "Instead, you can have a civilized conversation with the board," Teslik adds.

Of course, giving shareholders access to the boardroom should not become a regular part of the decision-making process. And not every shareholder should expect to meet with directors. The goofy gadflies, whose antics often mock the whole governance process, should not be welcomed. To gain entrance to the boardroom, a shareholder's stake must be substantial and the issue in dispute must be significant. Teslik suggests that "the higher you put the threshold, the broader you can define the issues that can be discussed." A 30% stakeholder, for example, should be able to sit down with the board on most issues, while a 3% owner could discuss a restructuring. Furthermore, the burden of providing a serious analysis or alternative lies with shareholders. They should not be in the boardroom solely to question management.

'INFLUENTIAL.' In return for giving shareholders access to the board, management gets something, too, Lipton notes. "It would be very influential before a court if we were challenged by shareholders," he explains. And there is a possibility that CEOs, who just might be too wedded to their own ideas, could learn something from stockholders.

Lipton's proposal doesn't suit every shareholder. Carl C. Icahn, for example, has been trying for ages to prod USX Corp. to sell its steel unit—but he has never asked to meet its directors and sees no point in it. Insisting that boards are rubber stamps, he is instead forming a USX shareholders' committee that will run as a slate of directors if the company doesn't restructure by spring. Long-term, Lipton himself prefers an entirely new system. To blunt what executives see as shareholder demands for short-run profits, Lipton proposes that directors, including insiders, run for five-year terms, based on their past performance and a detailed five-year strategic plan. But that idea strikes shareholders as even more odious an entrenchment device than poison pills.

Skeptics on all sides would agree, though, that corporate governance, as currently practiced, leaves much to be desired. The system doesn't need to be scrapped entirely. But what's wrong with trying out an idea that might break an impasse between investors and managers?

JONATHAN . EVINE

DEAN LeBARON IS DOWN, BUT HE ISN'T OUT OF IDEAS

Now, he's betting on a Soviet Fund—and it's a big gamble

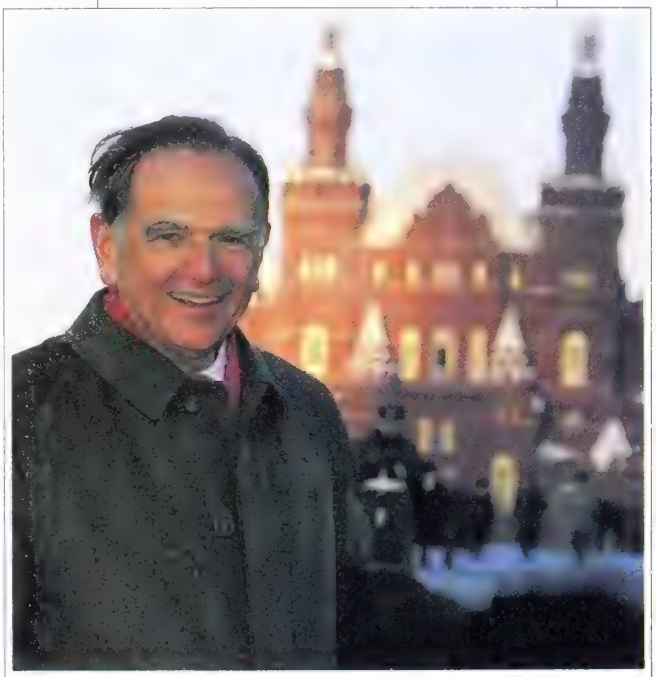
For Dean LeBaron, head of Boston's Batterymarch Financial Management, the good old days are fast becoming ancient history. Although he remains a legend among investment professionals, his computer-driven, contrarian investment strategies have failed to generate top-flight returns for most of this decade. So far this year, his U. S. portfolios have been a shambles—down 17.1% through Sept. 30, six points below the Standard & Poor's 500-stock index. Not surprisingly, clients are cashing out. Assets under management have plummeted more than 40%, to $6 billion, in the first three quarters.

Some money managers might pack it in after a run like that, but the 57-year-old LeBaron is unbowed. With much fanfare, he has unveiled plans for a Soviet venture fund, and LeBaron hopes it will draw $1 billion from large institutional investors. Says LeBaron: "You don't stop innovating just because of what's happened in the last couple of years."

Actually, the Soviet Fund is a variation on an old idea. Joint ventures have long been the principal vehicle by which U. S. companies have invested in Eastern Europe and China. The crucial difference is that joint ventures are usually directly between the foreigners and U. S. companies, but in this case, the LeBaron fund would be an intermediary.

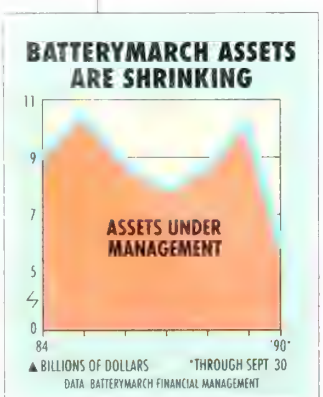
Still, the investors would be able to benefit from Soviet technology, just as if they were the joint-venture partners. Indeed, the possible technological benefits for U. S. companies are being pushed as part of the marketing drive for the fund. Among the industries that LeBaron is targeting are pharmaceuticals, heavy farm-equipment manufacturers, and defense contractors. Says LeBaron: "It's for a specific class of investors who want to be first."

Will investors clamor onto the queue? That's hardly certain. Hundreds of proposed joint ventures between American companies and the Soviet Union are on hold because of the turmoil there. "The Soviet Union is not yet at the point where we can even talk about there being an investment climate," says Jack Brougher, head of the Soviet desk at the Commerce Dept.



LeBARON IN MOSCOW: LOOKING TO DRUM UP $1 BILLION

With the Soviet political situation so unstable, LeBaron may have a hard time generating much enthusiasm among potential clients, such as defense contractors. "We're more comfortable investing in Mexico," says Tom Tull, director of employee-benefit investments at LTV Corp., a former Batterymarch client. A spokeswoman for Raytheon Co., whose pension fund is a Batterymarch client, says her company will do its own Soviet investing.



LeBaron is confident that he will find investors. "Globalization," he insists, is the key strategy. Since 1983, Batterymarch broadened its investments to com... in 25 countries, and in 1989, Batterymarch's non-U. S. portfolios returned an average of 28.5%, compared with ... for the Europe, Australia, and Far East Index (EAFE), a barometer of international investments. This year, Batterymarch's non-U. S. investments fell ... through Sept. 30, still outpacing the 30.7% decline in the EAFE index.

LeBaron admits, however, that his domestic strategems have not exactly been a thundering success. In 1985, he ... away from a purely quantitative approach to investing in U. S. equities, ... ing to his computer model such factors as market share and technological competence. But his approach failed to harness the forces that were driving the bull market, such as the takeover ...

'MENTAL OVERHEAD.' LeBaron shifted his domestic strategy again last year. Since the summer of 1989, his computers have moved still further into the quantitative fold, by ... ing out investments in family-owned companies, businesses that generate lots of cash, and corporations that are buying back stocks and growing market share. He calls it "guerrilla warfare"—and judging from the 1990 results, it has not managed to make much headway.

LeBaron's slump seems to have made him more focused. He used to read Zen philosophy for inspiration. Lately he has been boning up on the Soviet Union. He has lost interest in some of the gadgets he used to own. He still loves flying and recently bought a seaplane to get to his Vermont vacation home. But he sold a personal flight simulator and gave away one of his two motorcycles. "They require too much mental overhead," he says.

Instead, LeBaron is devoting his cerebral acumen to his effort to regain the leading edge in money management. Boston's "investment guerrilla" will find the Soviet Union a tough land to conquer—at least as rough as the streets. When LeBaron announced the Soviet Fund, a Soviet Deputy Foreign Minister described LeBaron's fund as "highly symbolic." Symbols don't make profits, of course. But when your clients are fleeing, and your investment strategies have consistently failed, a little symbolism can't hurt.

By Geoffrey Smith in Boston

ENE G. MARCIAL

ES HENLEY'S UNGE MEAN IT'S ME TO POUNCE?

Henley has gone through several restructurings already, and it's planning yet another move to up the company. But that's not could fire up Henley Group's . What could? A likely buyout.

ice May, shares of the diversified any have been in a slump, falling 38 to 15½, largely because the t is unimpressed with Henley's restructuring plans, including the ff of its Fisher Group unit.

t some savvy pros are taking ey seriously, and they see the 's steep dive as an unmistakable rtunity to snap up shares. They ve that regardless of how Hen- next restructuring plays out, a ver deal is coming.

recent months, a Swiss-based in- r group called Libra Invest & e has been accumulating Henley s. Its now holds a 24.9% stake. ntly, the Federal Trade Commis- approved Libra's application to up to 49.9% of Henley. But when ey's board appeared set to estab- a poison pill, Libra agreed to sign cord on Nov. 19 that calls for it to t from raising its stake above 30% igh the end of 1992.

the surface, it looks as if Libra, h is controlled by savvy Lebanese tor Toufic Aboukhater, has ended lans to acquire a stake of nearly But the accord allows him several ns that would enable him to ve an even larger goal.

PRINT. The agreement doesn't ac- y bar Aboukhater from making an sh tender offer for the rest of ey's shares. And it becomes inval- a group unaffiliated with Libra mulates a stake of 15% or more. accord also becomes invalid if Hen- Chairman and CEO Michael Ding- or President Paul Montrone s the company. Libra says it ht shares in Henley based, in part, s faith in Dingman.

e betting is that Aboukhater, said a close friend of Dingman's, may up with him to make a tender to take Henley private. "Ding- and Aboukhater have invested to- er in other ventures," notes one York pro. A Henley spokesman that, over the years, Aboukhater has been a constructive investor, and "we expect he will remain so."

Takeover players believe that Henley is trading way below its breakup value. First Boston's Jack Blackstock puts Henley's asset value at $35 to $40 a share. He figures that Henley's Fisher Scientific operations alone are worth $15 to $19 a share.

Apart from its diverse operations, Henley also owns interests in other companies, including a 37% stake in Itel and 7% of Wheelabrator Technologies. Henley's three operating units make laboratory and medical instruments and supplies; equipment and specialty materials for the aerospace, defense, and industrial markets; and engineered products.

THE HIGH ROLLERS EYEING CAESARS

Casino stocks have been big losers all year, thanks in part to the gambling slump that has hit Atlantic City. Caesars World, which owns a casino-hotel in Atlantic City and two in Nevada, shouldn't be an exception, since analysts expect the company to post lower earnings in the next four quarters. Even so, Caesars' stock has jumped from 11 to 14¾ in a month. The reason: Takeover rumors.

Whispers of a buyout started recently, when California real estate investor Larry Lawrence said he owned 2%, or some 400,000 shares, of Caesars. But there are even bigger players said to be eyeing the company. Among them is a group controlled by Japanese entrepreneur Minoru Isutani, who recently purchased California's Pebble Beach golf course and related properties for $800 million. Isutani is chairman of Cosmo World, a developer of resorts and golf courses that is building Caesars Canyon, a 350-room resort hotel near Las Vegas that Caesars will manage for Cosmo. Isutani is said to be very interested in Caesars.

One West Coast money manager says Caesars will have to look to partners outside traditional U.S. gaming interests to expand operations. "The Japanese now appear to be the only group eager to come in," says the pro.

John Uphoff, an analyst at Raymond James & Associates, says that based on the price-to-cash-flow multiples, Caesars is worth more than $36 a share. He puts Caesars' cash flow at $4 a share. Recent buyouts of casinos went for 9 to 10 times cash flow. A Caesars spokesman declined comment.

COURIER'S MESSAGE: NO LOW BALLS

The nation's second-largest check-printing company, John H. Harland, may have to raise the ante for Courier Dispatch Group, the Atlanta air-and-ground express-delivery company it's trying to acquire. The stock was at 3½ on Oct. 10, when Harland, which owns 51% of Courier, made an offer for the rest of the shares at $3.75 apiece. The stock is still at 3½.

But some Courier shareholders argue that Harland's offer is unfairly low—and Courier's board has rejected it. Insiders estimate Courier's takeover value at $5 to $6 a share.

"We feel complimented by Harland's interest in Courier, and we know we need Harland's resources for us to grow as rapidly as we would want to," says President Paul Dean. But Courier's investment bank, Robinson-Humphrey, advised that the offer was inadequate, says Dean.

One big investor notes that a U.S. financial-services company and a European conglomerate have expressed an interest in buying Courier. He says they made the approach after Courier turned down Harland's bid.

Courier's earnings for the year ending June, 1991, are expected to rise to 30¢ a share from 18¢ in fiscal 1990. Some 70% of the company's earnings come from ground-courier services in seven states, including pickup and delivery of mail, checks, and other time-sensitive items. A Harland spokesman says the company is still mulling its next move.

ENDORSEMENTS

DOUGLAS LOSING TO HOLYFIELD: IN 1991, THE CHAMP MAY MAKE $5 MILLION IN ENDORSEMENTS

AND IN THE SQUEAKY CLEAN TRUNKS. . .

Nice guy Evander Holyfield may be a marketing heavyweight

New World Heavyweight Champion Evander Holyfield does beat people up for a living, and you might not want to have him over for high tea. But compared with some of boxing's bruisers, he's a Boy Scout. Even so, it's a bit surprising how aggressively marketers are clamoring for his services. As former champ Mike Tyson and basketball star James Worthy have proved, sports personalities can be high-risk vehicles for endorsement campaigns. But even before Holyfield steps back in the ring to face his first title challenge, from George Foreman next spring, nearly a dozen companies are trying to cram into the champ's corner.

The elbows flying most furiously belong to archrivals Coca-Cola Co. and PepsiCo Inc. Since Holyfield is an Atlanta resident, you'd think Coke would have sewn up its hometown talent long ago. But the folks at Pepsi glimpsed Holyfield's potential long before he K. O.'d James "Buster" Douglas to win the world heavyweight title on Oct. 25.

Pepsi signed 28-year-old Holyfield to a small-potatoes contract last spring and left the door open for it to be renegotiated if he became champion. Under the old deal, estimated at $200,000 or less, Holyfield's role was limited to being a celebrity endorser for Pepsi's Southern region, covering 13 states. Pepsi's advertising agency, BBDO Worldwide Inc., in early November proposed a sweetened contract to Holyfield's agent, Shelly Finkel.

Coke, however, is not about to assume the position in which Holyfield left Douglas, and Finkel is playing it coy. He met on Nov. 15 with Coke, which put a competing offer on the table. Whichever soft-drink heavyweight wins, industry insiders expect the deal to be worth as much as $2 million. Pepsi's ill-fated 1988 deal with Mike Tyson paid the former champion $1.25 million to endorse Pepsi. Those ads were discontinued Tyson's marital woes and bizarre became supermarket-tabloid fo Pepsi officials say they aren't w about a repeat performance. "We' much like to continue working Evander," says Pepsi spokesman Gerdemann.

> For someone who's good with his fists, Holyfield is decidedly unthreatening. He doesn't even swear

A CRUSADER. Pepsi's not alone. says he has heard from Burger Members Only, and an unnamed retail chain. Kevin McMullan, Me Only's vice-president for marketing firms that the sportswear compa "in the process of talking Evander." He says the champ fi company's bill because of his lon antidrug crusade. "Youth are swayed by perception, so we alway to get with athletes who portray po images for children," McMullan sa

For a guy who's good with his Holyfield is decidedly unthreate He's deeply religious, modest, and ulate. He doesn't even swear. "He tremendous crossover appeal," say Vegas lawyer Marc D. Risman, w gotiates deals for several sports fig Because he combines athletic pro with low-key charm, says Risman could be a role model for blacks, w being a threat to the rest of Ame

Not everyone is ready to declare field a marketing champion. Som he lacks charisma. "If you don't that sparkle," notes New York s marketing consultant Marty Black "you'll never become a superstar."

Seth Abraham, president of Warner Sports, owner of Home Bo fice, disagrees. "I think he's a s marketing champ," Abraham says cause of his "workingman's ethic public perceives him as a guy, like who goes to work every day and worked his way to the top, without complaining." That work ethic, says kel, should be worth as much as $ lion in endorsements in 1991.

That sum, handsome as it is, approach what Holyfield can earn i ring. He took in $8 million from Douglas fight, and his paycheck ju to $20 million for the Foreman bo Atlantic City. If he sends Forema palookaville, he'll earn $25 million fr slugout with Tyson next fall.

Aside from those bouts, Holyfi biggest worry could be the divorc tion filed in September by his wife, lette. She accuses him of adultery, v he denies. His lawyers want a quie tlement, and no wonder. In sports keting, you can get knocked out wit ever stepping in the ring.

By Stephanie Anderson Forest in Atl

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THE SELLING FRENZY THAT NEARLY UNDID ORACLE

A stock collapse has the software giant curbing its pell-mell expansion and slapdash sales practic

Talk about a fast track. When Kenneth E. Marshall joined software maker Oracle Systems Corp. in 1985, he was an entry-level salesman with a $1 million annual quota. Four years later, Marshall was a group vice-president running a 500-member team with a $150 million quota. No question, it was a cutthroat environment. "If you didn't make your numbers, you'd lose your job," he says. But it was rewarding: When he left for a startup last December, Marshall was one of more than 100 Oracle employees who had become millionaires.

But in its exhilarating push for growth above all else—the marching orders of founder Lawrence J. Ellison—Oracle paid little attention to such things as management controls. So nobody was prepared when things started going wrong for the Redwood City (Calif.) maker of data-base packages.

And they have. Beginning in March, when the company announced a 54% jump in revenues—but only a 1% rise in earnings—Oracle has suffered a series of setbacks, culminating in its first-ever quarterly loss. The stock has collapsed from 26 to less than 6 (chart), prompting a series of resignations. "We had to get hit upside the head with a two-by-four," says Ellison. He now admits that he waited too long to exert control from headquarters. "That was my fault." Ellison has since assured investors that he'll slow 1991 growth goals from a 50% rate to a manageable 25%—and start running Oracle as the $1 billion company it is.

OVER THE BRINK. That will require a lot of changes. Extensive interviews with current and former Oracle employees reveal a pattern of questionable sales practices, products marketed before they were complete, unorthodox accounting methods, and inexperienced management. "Oracle's a company that by design lives on the edge," says Paul Vilandre, a former finance vice-president.

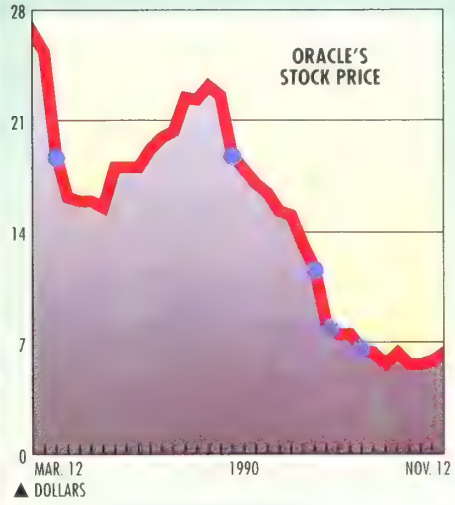
Its hyperaggressive sales philosophy seems, at times, to have taken it over the edge. Oracle has 25% of the market for so-called relational data-base software, making it No. 1, just ahead of IBM, according to market researcher Dataquest Inc. Such programs are used for jobs ranging from market planning to inventory. Oracle dominated by adapting its program to many different brands and sizes of computers. Ellison, who owns 26% of Oracle's stock, set out to grab market share before compe caught up. Two years ago, whe company had just passed $280 mill annual sales, he declared a "fi five" plan—to reach $5 billion in within five years, say insiders.

PAPER GROWTH. Pursuing Ellison's salespeople began cutting corners former employees. Because they paid commissions when they recor sale—not when money changed ha reps often sold products that woul be ready for months. Sometimes, sold packages barely off the dra board. The result was enormous rev growth—but largely on paper. In t cal year ended Ma 1989, for example, nues more than dou to $584 million. Bu ceivables—mainly lected bills from cu ers—were a whop $262 million. In 1990, hit $971 million—an ceivables, $468 millio

To get by, Oracl gan taking on Long-term debt, d from $250 milli bank lines, jumped from $3 lion a year ag $166 million. A in its first qua ended Aug. 31 Oracle in dang violating loan nants, which renegotiating.

Many of Ora problems, say fo insiders, can be trac a lax revenue-recogn policy. Even by stan of the hot-growth software industr practices were extreme. "Oracle probably got the most lax standard bookings of any company I've worked for," says a former man One of the most glaring abuses keeping the books open for four after the end of a quarter. The com has acknowledged that, because of sales made after the close of the qu

A SERIES OF NASTY SURPRISES CLOBBERED THE STOCK



DATA: BRIDGE INFORMATION SYSTEMS INC., BW

MAR. 27 Announces flat third-quarter earnings, despite record sales. *Stock falls $7.88, to $17.50, on record volume*

JULY 10 Fourth-quarter earnings up by more than 50%. Analysts say they were led to expect more. *Stock falls $2.50, to $19.88*

AUG. 27 Announces that it is restating earnings for the last three quarters of 1990. *Stock falls to $11.62*

SEPT. 6 Warns of first quarterly loss, estimated at 20¢ per share, or $27 million, for quarter ending Aug. 31. Analysts had expected 9¢ per share profit. Management cuts growth goal from 50% to 25% for coming year. *Stock falls to $8.13*

SEPT. 25 Reports first-quarter loss of 27¢ per share—a third higher than Sept. 6 estimate. *Stock drops to $6.25*

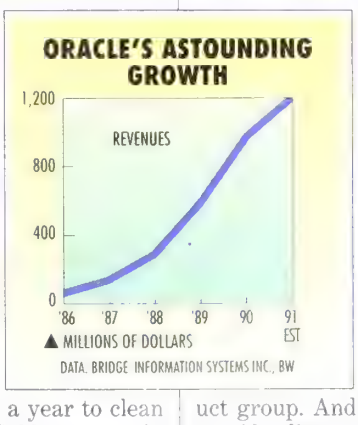
counted. Another problem was to value-added resellers—compa- hat sell packages with computer ns. Oracle recorded such sales im- tely, even though it didn't get paid the software was resold.

cle's salespeople also made prom- hey couldn't keep. For example, would sell a new package, assuring ent within a year. One customer his salesman tried to collect pay- on such a sale, even though the are never arrived. Salespeople also l deals by appending secret letters ntracts, guaranteeing products l run at certain speeds, for exam- he push for sales, says Vilandre, employees "extremely motivated k the other way." Ellison concedes ls were sloppy, but he says man- ent never winked at such activities. any case, Oracle's shaky founda- began to teeter early this year. ware sales started to soften, partic- those of Digital Equipment Corp. minis, which account for more than f Oracle's data-base sales. Yet Ora- U.S. sales unit had record book- "We started seeing signs that were control problems in Oracle says Michael G. Musson, Oracle's or of investor relations. Eventual- at prompted an internal audit, and igust the company restated earn- for the last three quarters of fiscal shifting some revenues from the d quarter to the third but not alter- ull-year results.

ngs got worse when the company w sales territories. For months, people were unsure of their new re- sibilities, and sales stalled. By Sep- er, Oracle realized it was in trouble old analysts to expect a $20 million It turned out to be $36 million. anwhile, customers were becoming tisfied. Many programs, such as Oracle Financials, an accounting package, were released before all major bugs could be fixed. But when customers looked for salespeople to complain, they were suddenly scarce. "When you'd call with problems, you got runarounds," says Anthony Ziemba, president of the New York Oracle Users Group.

Oracle was ill-equipped to deal with the problems. Like the cobbler's shoeless children, its managers were stuck with an inadequate computer setup. Its order-entry system dated from when Oracle was a $20 million company. Using its own bug-ridden Financials program, it could not accurately count receivables.

'LOT OF DENIAL.' Senior management apparently ignored the mounting problems. While smart and aggressive, many top executives are barely in their 30s and never worked at big companies. Also, it was pretty clear that telling bad news to superiors was no way to get ahead. "Some [senior managers] would tend to dismiss bad news," says John R. Luongo, a former senior vice-president. Admits Ellison: "There was a lot of denial going on."



DATA: BRIDGE INFORMATION SYSTEMS INC., BW

Now, Oracle has about a year to clean up its act, says Paul V. Cubbage, a software-industry analyst at Dataquest. Informix, Sybase, and Ingres have always offered programs considered to be at least as good as Oracle's. They haven't been as aggressive in sales as Ellison's legions, however, and are also reporting disappointing earnings. But they could gain if Oracle weakens. More dangerous are IBM and Digital, which offer their data-base packages to hardware customers at a deep discount.

Ellison, who in the past was known as an aloof CEO who preferred to hang around with programmers, says he's now deeply involved in reforming the company. He has purged the top ranks of the domestic sales and marketing organization and dismissed several other executives. He also laid off 400 headquarters employees. Newly appointed Oracle USA President Michael S. Fields and President of Worldwide Distribution Operations Geoffrey W. Squire have been applauded by former executives and analysts. A new compensation plan adds incentives for booking sales early in a quarter. And the four-day grace period has been eliminated.

More important, customers are regaining confidence. Bugs are disappearing, and service is improving. "Now, when you call with problems, you may be put on hold for five minutes, but you're routed to the right person," says Ziemba.

Ellison still has a lot to do. He has promised to find a new chief financial officer, since current CFO Jeffrey L. Walker has no financial background and doubles as head of a product group. And Ellison is recruiting new outside directors to prevent the return of Oracle's lax old ways. "Those days are behind us," he says. Wall Street isn't so sure. "The vast majority of investors believe there will be [more surprises]," says Charles E. Taylor Jr., a Prudential-Bache Securities Inc. analyst. Ellison may not win back Wall Street until he shows that good business practices are as important as producing millionaires.

By Richard Brandt in Redwood City, Calif., with Evan I. Schwartz in New York

CHARTS BY ERIC HOFFMANN/BW

COMMUNICATIONS

SATELLITE BROADCASTING: STUCK ON THE LAUNCHPAD?

Despite deep-pocketed backers, the systems' woes are mounting

For a $1 billion high-tech project, it was stitched together with remarkable speed. In a matter of weeks, General Motors' Hughes Communications, General Electric's NBC unit, cable giant Cablevision, and Rupert Murdoch's News Corp. agreed to launch Sky Cable, an ambitious joint venture designed to offer 108 TV channels beamed directly from satellites to customers' home receiving dishes.

But haste may have made waste. Soon after the companies' Feb. 21 announcement of their plans for a direct-broadcast satellite (DBS) service to start in 1993, the partners began squabbling over the details. "I think it's questionable that Sky will fly," says Dennis McAlpine, an analyst at Oppenheimer & Co. Meanwhile, Sky's main competitors, K Prime Partners and SkyPix Corp., are also encountering static.

NO WIRES. Even if all the companies make it, DBS may not be a bonanza. With cable already offering scores of channels, the nation's TV viewers haven't exactly been clamoring for more. Even though 92% of homes with TV have access to cable, only 59% have signed up. And there's no evidence that viewers who nixed cable would go for DBS instead, especially since much of the programming will be similar.

DBS executives say they're not worried, arguing that there are enough untapped viewers to ensure that the concept will work. And DBS companies plan to grab subscribers from cable as well. What's more, the breakeven point for DBS is much lower than cable's, since DBS doesn't require any wiring. Instead, programming would be sent up to satellites, then down to two- to three-foot-wide receivers placed on customers' roofs or window sills. And a glut of satellite space should keep transmission costs low. "This will be an absolutely gangbuster business," says Stanley S. Hubbard, whose St. Paul, (Minn.)-based Hubbard Broadcasting Inc. expects to launch its own DBS service in 1993.

SKITTISH. But there are plenty of hurdles to overcome before anyone will see any profits. Sky Cable has major kinks to work out. Some partners are balking at Cablevision Chairman Charles F. Dolan's demand for exclusive distribution rights where he owns cable-TV systems. NBC Inc. President Robert C. Wright gripes that the plan to wait three years for technology improvements will give rivals too much of an edge. But what made Sky's partners especially skittish was Congress' failure to enact a cable-regulation bill that would have forced cable companies to license their programs to DBS competitors. "This does not mean we are not going forward," says Thomas S. Rodgers, president of NBC cable and business development. "It does say that Sky Cable faces a more difficult challenge."

The result: NBC and Cablevision may reduce their stakes, with Hughes playing a larger role. Murdoch, whose media empire is carrying enormous leb may get out completely. The gro now scrambling to find other inv to spread the risk, possibly even a ie studio.

K Prime in Bala Cynwyd, Pa., sortium of nine major cable-TV tors plus GE Americom, may be best-positioned rival. It has alread gun test-marketing its 10-channe service, known as PrimeStar, in ies from Concord, N. H., to Baker Calif., and it expects to be in at 120 cities by mid-1991. But fe trustbusters have raised ques about a combination of cable comp that accounts for 27% of the m and includes such heavy hitters as Communications Inc. and Time W Inc.'s cable operations.

Seattle's SkyPix hopes to have channel service in the skies next making it the second DBS service eration. It will compete against rental stores by offering first-run ies on a pay-per-view basis. Pres Brian McCauley says his timeta "absolutely on target" even thoug company hasn't pleted its $200 m financing, orc any equipment picked test McCauley says t nancing will be within 90 days said that in Sep ber, though, too.

LEGAL WOES. Ev SkyPix can mee 1991 launch sche its problems ma be over. Chairma Frederick Greer is the former c man of First City tional Bank & Co. of New Yo bank the governm closed in 1989. Comptroller of Currency is no vestigating whe Greenberg violated rules against ing abuses by insiders and filed leading reports to banking author If he is found to have violated the it may well affect the company's a to raise funds. Greenberg, throug lawyer, declined comment.

In the next year, DBS will get its true market test. If the doomsayer right, the public will turn a blind e this latest video offering. DBS may be an idea that simply isn't ready lift-off.

By Mark Lewyn in Washington, Dori Jones Yang in Seattle

A K PRIME TRANSMITTER: THE CONSORTIUM, WHICH INCLUDES HEAVY HITTER TELE-COMMUNICATIONS, PLANS TO BE IN 120 CITIES BY MID-1991

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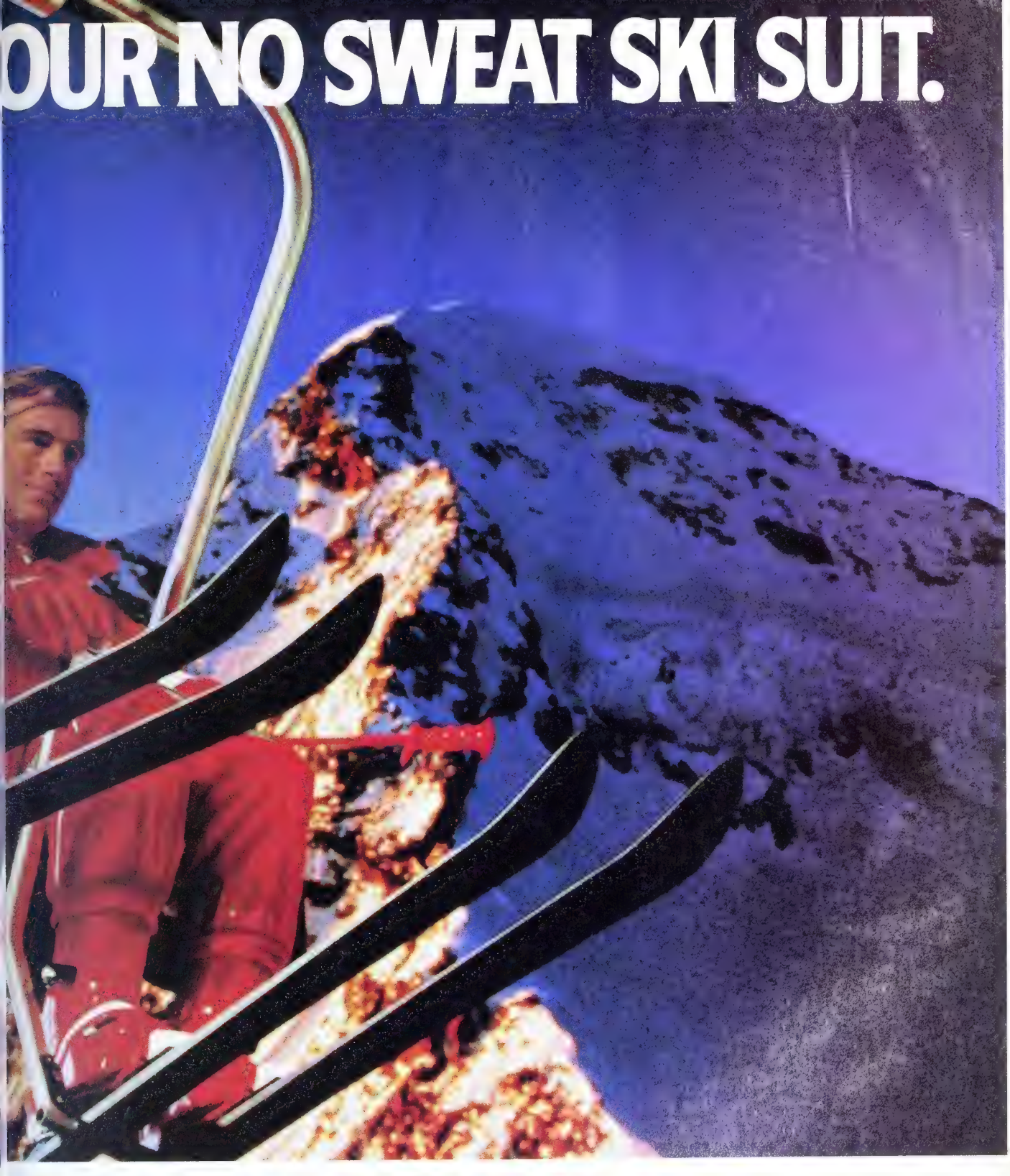

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) BY WILLIAM D. MARBACH

N TO FIND OUT HOW ICEFULLY YOU'RE AGING

How old are you, really? When it comes to aging, it's biological, not chronological, age that counts. It is possible for a 40-year-old to have the lung capacity or reaction time of a 55-year-old, and vice versa.

Now, there's a quick way to find out your biological age. Hoch Co. of Corona del Mar, Calif., has rolled out the H- an automated system that measures some 12 functions decline with age—everything from lung capacity and term memory to decision speed and touch sensitivity. the 45-minute test is over, the $18,500 system tells you ealthy you are relative to your chronological age. For who test older than their years, diet and exercise pro- can often enhance performance.

entor Richard Hochschild is marketing the machine to ch institutions, health clubs, doctors, hospitals, and med- sting services. So far, he has sold eight machines. "I'd see one in every health club, so people can see whether interventions are having some benefit," says David E. son, senior staff scientist at Jackson Laboratory in Bar r, Me., a genetics research lab. Harrison, by the way, some 10 years younger than his 48 years.

N, 'ANTISENSE' WILL BE RE THAN A DRUG THEORY

one of biotechnology's brightest frontiers. Scientists be- e that so-called antisense drugs may help conquer many es. In theory, the drugs work by blocking genetic activi- t there's no proof yet that they will work in humans.

Pharmaceuticals, an 18-month-old Carlsbad (Calif.) start- about to test the first antisense drug, a remedy for s keratitis, an infection of the eye. In this case, the drug production of a protein needed by the herpes virus to duce itself. The company has already attracted pharma- al giants. In October, Ciba-Geigy Ltd. signed a $30 mil- leal for a 13% stake in ISIS and access to antisense unds aimed at four inflammatory and viral disease tar- A second venture, with Rhône-Poulenc, will develop anti- drugs to block genes associated with certain cancers.

IECE OF THE 'YUPPIE FLU' ZZLE FALLS INTO PLACE

cause has eluded researchers for a decade: Patients re- t a never-ending feeling of fatigue and ill health, for no ent reason. Some have dubbed it the "yuppie flu," but rs are taking chronic fatigue syndrome seriously.

Nov. 18, researchers at the University of California at Francisco reported a breakthrough that could speed the h for the mystery disease's cause: They have finally ed an important "signature" of chronic fatigue syndrome. Researcher Jay A. Levy found evidence that chronic fatigue patients' immune systems appear as if they're fighting an infection that won't go away. Specifically, the patients show elevated levels of one type of disease-fighting white blood cell, dubbed the "CD8+ cytotoxic T-cell."

The scientists still believe the syndrome is caused by an infectious agent. They are developing a blood test that should more accurately diagnose patients—separating those with the syndrome from patients for whom fatigue is a side effect of something else. The test should help doctors zero in on the cause—and someday, a cure. •

U.S. FOOD FACTORIES: THE GOOD, THE BAD, AND THE UGLY

Three years ago, A. T. Kearney Inc. sent its consultants into about 100 U. S. food plants to see how the producers stacked up against foreign rivals. Not one merited world-class status. Those factories recently got return visits, and this time the Chicago firm turned up some good news: A half-dozen plants rank among the world's best. The biggest change: Separate quality staffs and first-line supervisors are gone, and workers have taken responsibility for their own performance.

But while the best are getting better, the industry seems to be losing ground overall. Turnover and absentee rates, for example, had soared. According to Kearny, managers have an inflated view: One-quarter ranked their operations as world-class, and 40% more thought they were innovators. But Kearney tagged only 27% as innovators. It deemed 40% followers and another 27% as downright stagnant.

KEEPING KILLER CHEMICALS AT BAY DURING HEART ATTACKS

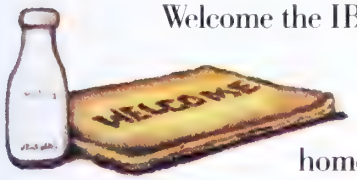
Each year, at least 300,000 Americans succumb to sudden cardiac death. The culprit: an electrical short circuit in the heart muscle, usually triggered by a clot. When blood flow to a portion of the muscle is suddenly cut off, the heart begins to fibrillate, wriggling like a "bag of worms" instead of pumping normally, says Peter B. Corr, professor of medicine and pharmacology at Washington University School of Medicine in St. Louis.

Until recently, scientists didn't know exactly what caused the short circuit. Corr and colleagues discovered that two chemicals, LCA and LPC, build up in the cell membranes when the heart muscle is deprived of oxygen. These chemicals, which carry fuel across the cell membranes, disrupt the normal course of the electrical wave that flows over the heart, just as an island disrupts ocean waves.

Corr has found a drug that blocks production of LCA and LPC. In tests, it prevented sudden cardiac death in animals. But the drug has unacceptable side effects, because it blocks an enzyme used elsewhere in the body. So Corr is designing a similar drug that would target only the damaged heart. He expects such a drug to be available within a decade—and to be vastly superior to the current remedy, an automatic electronic defibrillator that is implanted in high-risk patients.

IBM brings it a

ome.



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MATOID ARTHRITIS SUFFERER BISHOP: AN EXPERIMENTAL TREATMENT OFFERS SOME HOPE

EW WEAPONS TO DEFEND HE BODY AGAINST ITSELF

entists are making strides in fighting auto-immune diseases

1979, Barbara Butler Bishop was in he final throes of a failing marriage. I thought the pain in my neck was ' she recalls. But after she and her and split, the pain stayed, spreading very joint in her body. Ever since, ife has been a series of drugs, doc- bills, and, at times, sheer agony.

shop, a 43-year-old Dallas psycho- apist, has rheumatoid arthritis, a dis- that is the body's expression of -hatred. A pa- 's immune sys- sees its body's joints as for- . It dispatches ions of white d cells to wrists knees, where the nicals they re- e cause swelling damage.

CHES. Rheuma- arthritis, or RA, ne of perhaps a n conditions that lt from the inap- riate activation ne body's inflam- ory process. en it works cor- ly, inflammation defense against nful substances, as viruses or bacteria. But glitches in the process can lead to so-called auto-immune diseases, including such chronic maladies as RA, multiple sclerosis, asthma, and diabetes. For most such diseases, there is no cure.

But now, at least, there's hope. At two dozen drug and biotechnology companies and hundreds of academic labs, auto-immune disease has become a red-hot research priority. Biologists are unraveling the complex chemical cascade that produces inflammation. With remarkable speed, that knowledge is being translated into strategies to sabotage the process—and create what some analysts believe could be billion-dollar markets. The list of players includes Merck, Hoffmann-LaRoche, Syntex, Abbott, Pfizer, and SmithKline-Beecham, a handful of biotech companies such as Biogen and Immunex, plus startups such as Icos, Cytel, and ImmuLogic.

Inflammation begins when surveillance cells, which have formal names such as macrophages and B-cells, course through the bloodstream and literally consume bits of an invading virus or other foreign threat. The surveillance cells "present" this evidence to T-cells, or white blood cells that form the body's first line of defense. The T-cells begin producing chemicals that signal other immune cells to travel to the problem site and help attack the invaders.

INFLAMMATORY MESSAGE. The process involves dozens of separate chemical reactions, which researchers are beginning to understand: Several companies, for example, including Abbott Laboratories in Abbott Park, Ill., are testing drugs that block leukotrienes, chemicals that recruit destructive white cells to organs or tissues during inflammation.

One key has been deciphering the role of so-called receptor molecules that sit on the surface of all cells and act as gatekeepers for communications between different elements of the immune system. These receptors function like selective locks—only specific chemical "keys" can open them and deliver a message to the cell.

Interleukin-1, a hormone that is a signficant factor in initiating inflammation, is one such key. Seattle-based Immunex Corp. has gene-spliced the receptor for Il-1 and plans to test it next year as a drug to treat RA or asthma. The idea is to use circulating receptors as decoys to sop up Il-1 before it can deliver its battle cry to immune cells. In September, Synergen Inc., based in Boulder, Colo., began testing a related approach: Instead of sopping up Il-1, its drug prevents inflammation by gumming up the receptors where Il-1

THE FIGHT AGAINST INFLAMMATION

Inflammation is the body's defense against attackers such as viruses or bacteria. But the defense can go awry, causing crippling diseases such as rheumatoid arthritis or multiple sclerosis. The following companies are trying to cure such afflictions

INFLAMMATION MEDIATORS At the site of inflammation, cells make chemicals called leukotrienes that damage tissue. New drugs might block leukotrienes: *Abbott, Hoffmann-La Roche, Merck, SmithKline-Beecham, and Syntex*

CYTOKINES Inflammation is controlled by these key chemicals, particularly a hormone called Interleukin-1. Blocking the effects of Il-1 could stop the process. *Immunex, Pfizer, Synergen, and Sandoz*

CELLULAR TARGETS White blood cells, the first line of defense against illness, cause inflammation when they fight an intruder. One solution may be to eliminate or inhibit key populations of white blood cells. *Centocor, T-Cell Sciences, Xoma, Syntex, and Fujisawa*

CELL ADHESION MOLECULES Located in the lining of blood vessels, cell adhesion molecules (CAMs) act like crossing guards, allowing white blood cells to get from the bloodstream into tissue. Tricking CAMs into keeping the gate up could head off inflammation. *Boehringer-Ingelheim, Icos, Cytel, Biogen, and ImmuLogic*

MHC The body uses so-called MHC molecules on the surface of cells to help distinguish good or "self" substances from invaders. Auto-immune disease—which leads to chronic inflammation—occurs when the body mistakenly identifies "self" as foreign. The goal: fix the faulty indentifications. *Cytel and ImmuLogic*

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would normally attach to cell surfaces.

Another discovery that is spawning possible treatments involves "cell adhesion molecules," or CAMs. These are the receptors that mediate communication between cells. One family of CAMs resides on the surface of cells that line blood vessels. They serve as gatekeepers—controlling the migration of rampaging white blood cells from the bloodstream into tissues, where they cause inflammation. Now, Boehringer-Ingelheim, Biogen, Icos, and Cytel are testing ways to prevent this migration. The options include disabling the CAMs with antibodies, receptor sponges, or traditional drugs. "If you can block white blood cells from leaving blood vessels, you have blocked inflammation" says Jay D. Kranzler, CEO of Cytel Corp., a three-year-old startup. In the Nov. 23 issue of *Science*, Cytel announced a promising lead that could help the company design drugs to block one of the key gatekeeper CAMs, called ELAM-1.

BRITTLE BONES. Drug companies see vast financial promise in such drugs because millions of patients have auto-immune conditions. Take RA. Like many of the disease's 2.5 million sufferers, Barbara Bishop has taken increasingly toxic drugs to fight her growing discomfort. She started with aspirin in such high amounts that it made her ears ring, then moved on to harsh immune-suppressing drugs such as steroids and gold salts, which gave her cataracts, liver problems, and made her bones brittle. Still, she readily volunteers for experimental treatments because "a night of this kind of pain can seem like two years." An effective drug, say analysts, could command a market of $2 billion or more.

Currently, Bishop is being treated with antibodies that are aimed at the T-cells that swarm to joints in RA patients. The experimental antibody is armed with a toxin that kills the T-cell. In early November, Xoma Corp., based in Berkeley, Calif., reported that this drug, CD5-Plus, produced improvement in 45 of 60 RA patients for whom other therapies had failed. "We're really blazing new ground," says Dr. Vibeke Strand, a Xoma researcher and rheumatologist who left private practice in 1986 because "I got tired of not having good therapies." Attacking lots of T-cells could dangerously suppress the immune system, some experts fear. But so far, no serious side effects have been linked to drugs from Xoma and Centocor Inc. in Malvern, Pa., which is also testing antibodies against RA and other diseases.

Perhaps the most exciting research involves scientists' growing understanding of the first errant signals that trigger chronic inflammatory diseases. On the surface of surveillance cells su... macrophages are "major histocompt... ity complex" (MHC) molecules. Afte... rophages consume foreign par... MHCs display pieces of them like tr... on the cell's surface, where T-cel... ognize them as bad. The roots of... immune disease are thought to li... case of mistaken identity: T-cells s... tain combinations of MHCs an... body's own cells as foreign.

Cytel in La Jolla, Calif., and Im... gic in Cambridge, Mass., are looki... ways to correct or block auto-in... diseases at the MHC level—before t... flammatory cascade begins. "Int...

> Despite recent discoveri... new cures for auto-immu... diseases may not be availa... until the late 1990s

ence at that level would basically ... auto-immune disease," says Ma... Gester, chairman of ImmuLogic, ... is working with Merck & Co. In th... ture, researchers hope to use gene ... apy to insert new genes into cells ... thus reprogram someone's faulty M...

IDENTICAL PATHWAYS. Because o... number of patients and the inade... of current therapies, the first targe... most new inflammation drugs is RA'... virtually identical inflammatory ... ways are thought to exacerbate ... auto-immune disorders. In juvenile ... betes, for example, immune cells a... insulin-producing cells in the panc... In multiple sclerosis, immune cell... tack myelin, a protein that protects ... of the nervous system. Syntex is te... a leukotriene blocker to treat psoria... chronic skin inflammation, and ... mann-LaRoche Inc. is developing a ... lar drug for asthma.

Doctors are quick to point out th... will likely be the late 1990s before a... these new approaches reach pati... One problem is that despite the g... need for new treatments, most aut... mune diseases are not immediately ... threatening. Also, such drugs w... probably have to be taken over a ... time. Thus, the Food & Drug Adm... tration may take several years to e... ate new therapies to see what long-... side effects, if any, they might hav...

Still, for millions of patients who... persecuted by their own bodies, the... finally hope for an end to those ... year-long nights.

By Joan O'C. Hamilton in San Fra... co, with Naomi Freundlich in New Y...

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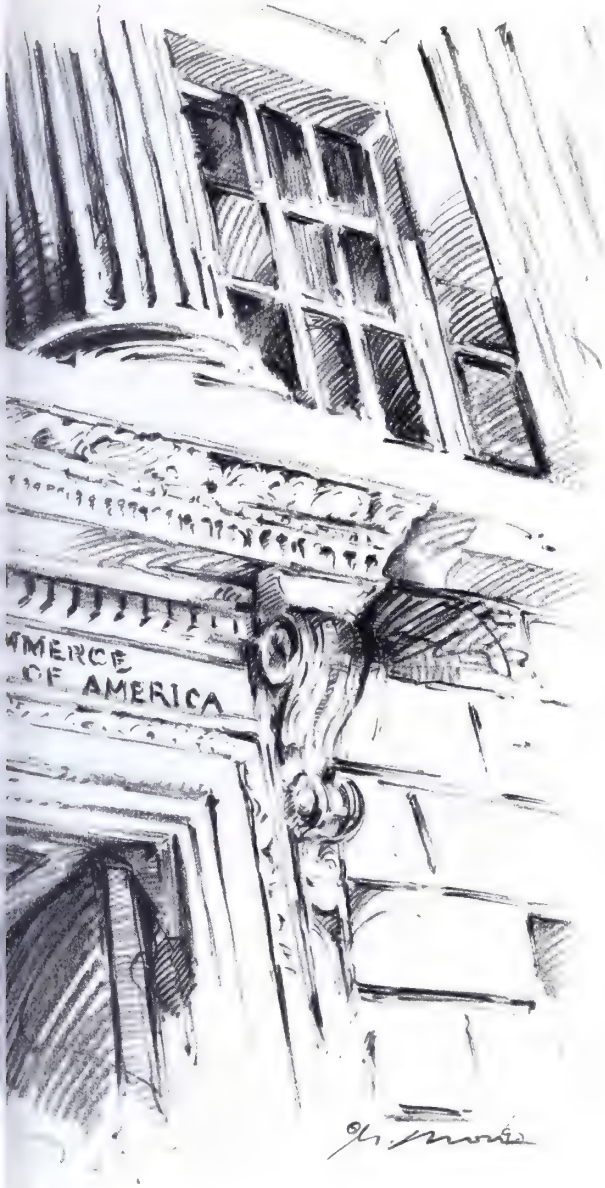

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Books

GLOSSY GIFTS THAT READ AS WELL AS THEY LOOK

The threat of recession may be tempering excess in most things, but extravagance is alive and well in the pages of this year's gift books. Publishers are offering coffee-table books that are larger and more lavish than ever. In fact, some are almost as big as coffee tables, weighing in at 25 pounds.

Obviously, illustration's the thing. But on the off-chance that the recipient might actually want to read the book, the following works offer well-written texts, too.

Remarkable Private New York Residences (Abbeville, $50) is as opulent as its subject matter. Chippy Irvine's chatty text and Alex McLean's beautifully lit photographs depict the city's upper crust at home. Highlights include Maxime de La Falaise—who lives in a *haute bohème* Fifth Avenue apartment with her dogs Patch, Cokey, and Baby-Butts—and Anne Bass's Upper East Side abode. Decorator Mark Hampton spent four years designing Bass's place to her satisfaction, with lots of faux marble and creamy silk.

African Ark (Abrams, $65) offers a photographic study of a decidedly different tribe. Authors Carol Beckwith and Angela Fisher spent five years in the Horn of Africa. The result is a moving and sometimes troubling look at the people of Ethiopia. The authors claim that many of the ceremonies are being shown for the first time.

The fine-art category is bursting with offerings. Japanophiles will enjoy *Masterpieces of Japanese Screen Painting* (George Braziller, $150) by Miyeko Murase. This oversized volume has 124 luminous gold illustrations depicting landscapes, demons, and dragons—plus 13 gatefolds extending more than four feet when opened. Several Van Gogh books are out, commemorating the centenary of his death. One of the best: *Vincent van Gogh* (Rizzoli, $90), a handsome, two-volume set. Just bend your knees before you pick it up.

LA BELLE EPOQUE. *Advertising in America: The First 200 Years* (Abrams, $49.50) by Charles Goodrum and Helen Dalrymple, is an exuberant history of how advertising has reflected, and sometimes shaped, American lifestyles. Kodak cameras and G[illegible] safety razors are amon[illegible] products that won publ[illegible] ceptance only after ma[illegible] ad campaigns. *Posters o[illegible] Belle Epoque: The [illegible] Spectator Collection* (R[illegible] $75), by Jack Rennert, [illegible] posters by Henri Toul[illegible] Lautrec and Alphonse M[illegible] among others, that depic[illegible] lively, bawdy cafés, st[illegible] and theaters of 1890s Pa[illegible]

In these times of env[illegible] mental consciousness, [illegible] only natural that flora[illegible] fauna draw a lot of atte[illegible] In *Nature's Chaos* (Vi[illegible] $29.95), photographer [illegible] Porter finds order in[illegible] seeming randomness of[illegible] natural world: His ca[illegible] captures compelling pat[illegible] in limestone, clouds, a[illegible] bark, and even crab scr[illegible]

in the sand. *America* li, $50) is a vast photo- ic undertaking by Jake with a foreword by Michener, who prom- a "joyous celebra- . of the extraordinary our nation occupies." s it is, though the post- retty pictures veer a lit- se to trite.

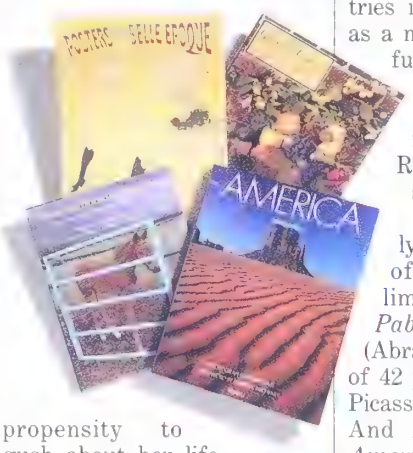
ar more successful cele- n of the U. S. landscape found on every page of *Adams: The American rness* (Little Brown, The beautiful black- hite images, which as a powerful argument nservation, are so much aintings that it's eerie. ook will leave you with s doubts about whether s was a mere mortal.

Angler's Album: Fish- Photography and Lit- re (Rizzoli, $50), by es Traub, is an attrac- et of photos bolstered by ceptionally literary text: There are passages by Plato, Plutarch, Yeats, Steinbeck, and of course, Hemingway, along with an introduction offering the singular perspective of Charles Kuralt. The photographers include Henri Cartier-Bresson and Marion Post Wolcott.

Other perennials—horses and yachts—are represented this year by *Thoroughbred Kingdoms: Breeding Farms of the American Racehorse*, by Carol Flake (Little Brown, $50), and *Yachting: The History of a Passion*, by Robin Knox-Johnston (William Morrow, $39.95).

EXOTIC RECIPES. Gardener-cooks will love *The Gourmet Garden* (Little Brown, $40), by Geraldene Holt and Hugh Palmer. So will anyone who just appreciates good writing. Holt profiles eight British gardens, offers gardening tips and exotic recipes (rumbledethumps, anyone?), and tells opinionated tales about vegetables. "I do not find salsify or scorzonera even mildly irresistible," she says.

Despite author Annemarie Huste's somewhat annoying



propensity to gush about her lifelong passion for cooking, *To the Good Life!* (Abrams, $35) is an elegant combination of an entertaining guide and cookbook, with easy-to-prepare recipes and handsome photographs by Bill Margerin.

The Well-Tooled Kitchen (William Morrow, $24.95) by Fred Bridge and Jean Tibbetts, manages to make kitchenware entertaining. Its entries include such necessities as a manual sausage-stuffing funnel, fish tweezers, a Yule-log ice-cream mold, and a diamond-impregnated whetstone. Recipes are tossed in along the way.

For those who are truly gripped by the spirit of giving, this year's limited editions include *Pablo Picasso: Guernica* (Abrams, $700), a collection of 42 prints of sketches from Picasso's most dramatic work. And *Audubon's Birds of America* (Abbeville and The National Audobon Society) is seven volumes of beautiful prints available in either portfolio or leather-bound formats. But at $30,000, some may reasonably think that's for the birds. *Ellen Alcorn*

Tax Tips

IS 'FREEZE' N HELP MELT 'ATE TAXES

eep inside the 1990 tax law is hot news for family-owned busi- s: The "estate freeze" is again a respectable way luce inheritance taxes. s technique had long a favorite method of ıg a family-owned busi- on to children without g a huge estate tax. s how it works: Parents italize the company with rred and common stock, ng the preferred shares ıemselves and giving the ıon to the kids. e genius of this strategy ne clear at the parents' . The worth of the com- shares had usually out- l the preferred, whose was frozen at the time ecapitalization. But for ourposes, only the pre- d shares would be includ- the parents' estate.

The Revenue Act of 1987 all but eliminated the freeze by requiring that the value of the kids' common stock be absorbed back into the parents' estate. Now, lawmakers have repealed that rule retroactively to 1987. But this time, business owners must follow some specific guidelines aimed at preventing a repeat of past abuses.

In the past, parents usually valued their preferred shares as high as possible and minimized the value of the kids' common, to avoid a hefty gift tax on the transferred equity. Now, a family subtracts the value of the preferred shares from the worth of the whole business to derive a value for the common shares.

The new rules require that any bells and whistles enhancing the preferred stock's worth must be real. For instance, if Dad assigns his preferred shares a high value on the grounds that the business promises to pay dividends on them, Junior had better make the payments. Otherwise, when the parents die, the value of the unpaid dividends will be added to the preferred stock. If Dad wants to boost the value of his preferred shares by claiming he has a right to sell them back to the company a decade down the line, he must actually sell them 10 years later.

STAY SLIM. Many experts applaud the new rules for reviving the estate freeze. But some, such as Ross Nager, a partner at Arthur Andersen, warn that a preferred stock's dividend rate must be considered carefully. While it's tempting to set a fat dividend, too high a rate could eat up earnings, leaving little for reinvestment or even for meeting expenses.

So before setting up an estate freeze, figure out whether the economics really work for your business. Companies with poor cash flow could get burned. *Catherine Yang*

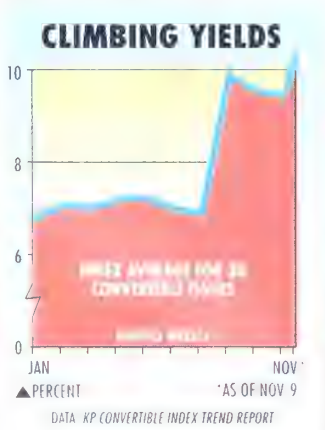
Smart Money

SOME BATTERED CONVERTIBLES MAY BE WORTH THE RIDE

The stock market's recent tumbles have rocked a venerable common-stock proxy—convertible bonds—even harder. These interest-paying bonds are convertible into common stock at a pre-stated price. Since January, the Standard & Poor's 500-stock index is off 11%, while the Value Line index of 580 convertibles is down 17%.

But as the prices of converts have been beaten down, yields have risen handsomely. Since January, their average current yield, as tracked by Kidder Peabody, is up from 6.9% to 10.5%.

The strategy: Buy the convertible now, and pocket the income until the market makes a comeback. "When the market is indiscriminately tossing everything out, you can generally find some better-quality issues" at a low price, says Harris Leviton, manager of the Fidelity Convertible Securities Fund.

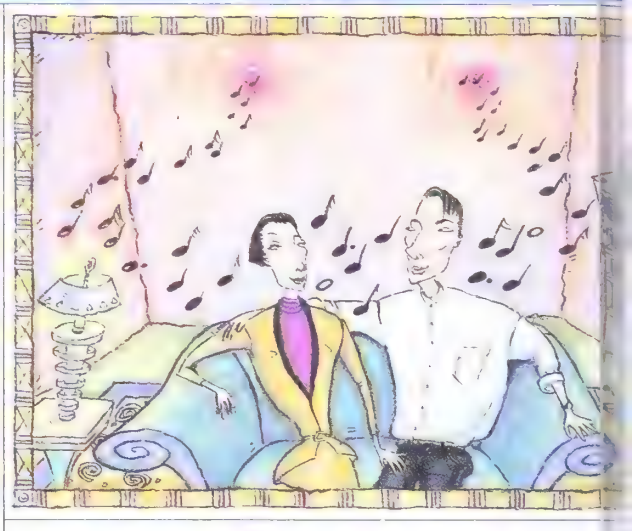


One is Browning-Ferris Industries, a waste-management company. A few months ago, Browning's common stock was selling for 49, and its 6.75% convertible bond due in 2005 was priced at 107. But poor earnings have caused the share price to fall 54%, and the convertible, rated A-, is down to 70.5¢ on the dollar, for a 9.6% current yield. Even so, analysts argue that the company has the capital to weather a recession and remain competitive.

RISKIER BET. The ideal, of course, is to find issues such as Browning, which combine high yield and good credit ratings. But for those willing to make a riskier bet, there is Storage Technology's 8% convertible, due in 2015. Since July, a $1,000 face-value bond has been hammered from $1,200 down to around $700—an 11% current yield. The issue is rated B, but with Storage Technology's tape library for mainframe computers selling well and the promise of a disk-drive product in 1992, some investors regard the bond as "an exceptionally cheap technology convertible," says Catherine Jacobson, president of Dreyfus Convertible Securities Fund.

Risk-averse investors may want to look at so-called put bonds, says Rick Nelson, a convertible-securities analyst at Kidder. These require that the issuing company, at the investor's request, repurchase the security at a specified price on a specified date. One issue Nelson likes: the A- American Brands convertible due in 2005. The bond is selling at 108, producing a 5.3% current yield. But if you choose to tender the bonds in April, 1995, the company will pay you 114.74—a guaranteed "yield to put" of 6.5%. And since American Brands has strong growth prospects as well, some analysts think these convertibles could achieve a total return of 10% to 13% over the next 18 months.

With the right converts, you can keep your income portfolio and be an equity player, too. *Bruce Hager*



Stereo

HIDDEN SPEAKERS: GOOD SOU ISN'T SECONDARY ANYMORE

Many an audiophile grew up believing that when it came to getting great sound, bigger was automatically better—and true-to-life stereo had to come from clunky boxes. But the latest breed of built-in loudspeakers takes advantage of space-age materials and computerized engineering, allowing manufacturers to vastly improve speakers that are heard but not seen.

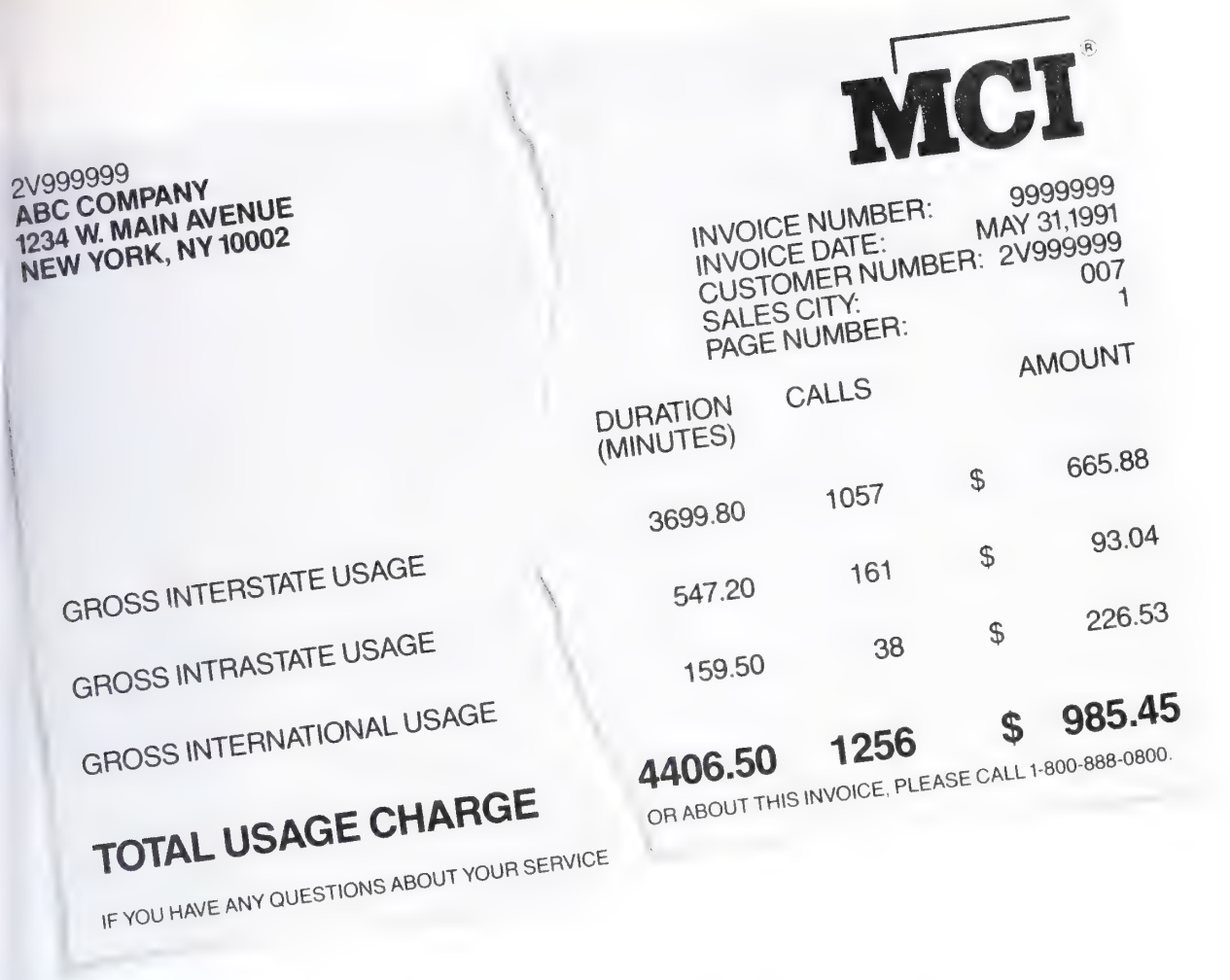
This generation has come a long way from earlier built-in models, whose sound often resembled that of a department-store public-address system. Today, in-wall speakers from companies such as Bose, Polk Audio, and Sonance offer rich tones that incorporate deep bass notes and sweet highs. "The sound is excellent," says Keith Harter, audio-video manager at Sound City in Kinnelon, N.J. "They compare with a lot of the bookshelf speakers I carry."

Made in a variety of shapes and sizes, and covered with lightweight fabrics, built-ins can fit just about anywhere in walls or ceilings. Models with waterproof finishing "can even be used in showers," says Kevin St. John Leja, Sonance's market research director.

Many buyers find thi al for multiroom, comba stereo-television syste cause built-ins are flu mounted, only the ma cloth grille shows—an e that can be painted or ov with wallpaper (though so will muffle the fo slightly).

SETTING UP. Unless bu adept at home-remod chores, installation ro probably be left to a pr sional. The stereo deal purchase your system fr will likely offer insta at an additional cost o $ to $150.

While their sound repo tion is much improved, speakers still can't conv same clarity or sense o that freestanding mode and sharp-eared stereo may miss the pin-pointi ing (that is, the ac placement of individual ins ments) that is provided y finest boxes. But at that range from $150 t a pair, depending on built-ins offer a stylish alternative for music lo who want a system th put in its place—be th kitchen, the den, or eve bathroom. And they d compete with the fu for space. *Tim M*



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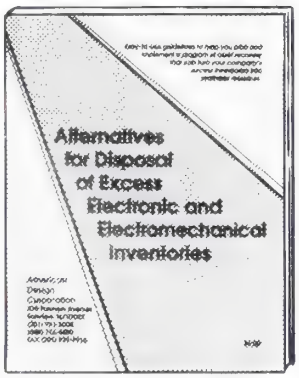

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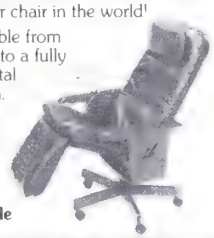

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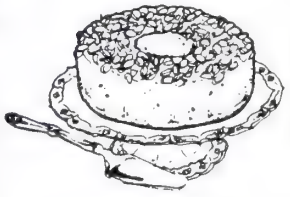

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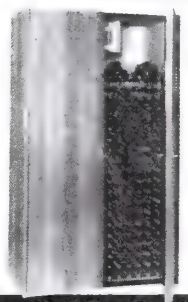

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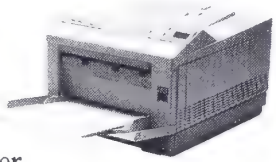

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which sent the Dow tum-
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at it is ready to cut in-
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that happens, stocks
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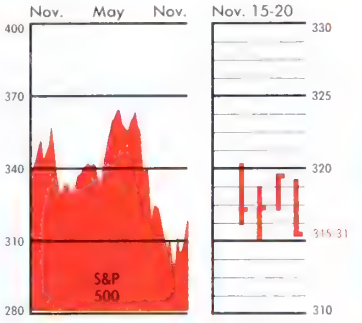

52-week change **–7.1%**

1-week change **–1.6%**

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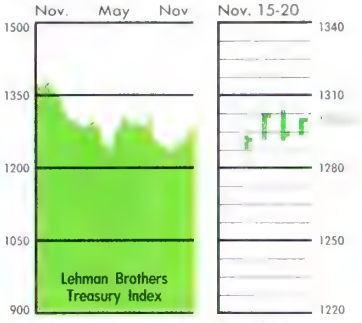

52-week change **–5.1%**

1-week change **–0.4%**

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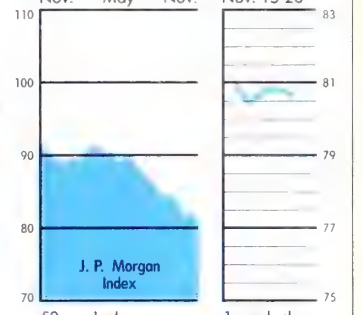


52-week change **–11.7%**

1-week change **–0.4%**

KET ANALYSIS

OCKS	Latest	% change Week	% change 52-week
NES INDUSTRIALS	2530.2	–1.2	–4.1
PANIES (Russell 1000)	163.2	–1.5	–8.8
OMPANIES (Russell 2000)	124.1	–0.5	–25.5
PANIES (Russell 3000)	172.2	–1.5	–9.8

I STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
(FINANCIAL TIMES 100)	2115.2	3.4	–3.2
NIKKEI INDEX)	23,205.5	–3.1	–35.6
) (TSE COMPOSITE)	3107.2	–0.7	–21.0

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.4%	7.3%	7.9%
30-YEAR TREASURY BOND YIELD	8.5%	8.5%	7.9%
S&P 500 DIVIDEND YIELD	3.7%	3.7%	3.3%
S&P 500 PRICE/EARNINGS RATIO	14.5	14.7	14.0

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	333.7	334.9	Negative
Stocks above 26-week moving average	20.1%	17.7%	Positive
Speculative sentiment: Put/call ratio	0.46	0.45	Positive
Insider sentiment: Vickers sell/buy ratio	0.41	0.45	Positive

STRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

EEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
ERING AND CONSTRUCTION	17.0	19.1	FLUOR	17.2	24.9	38¼
	14.4	–21.2	HASBRO	22.4	–31.4	15
RTY-CASUALTY INSURERS	13.3	–16.0	CONTINENTAL	33.3	–29.3	23½
	12.9	–12.7	NIKE	20.0	16.0	34½
JTER SOFTWARE AND SERVICES	12.5	–25.2	COMPUTER ASSOCIATES INTL.	36.2	–36.0	8

EEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
INE TOOLS	–16.2	–41.1	BROWN & SHARPE MFG.	–24.5	–23.7	8⅞
ND GAS DRILLING	–13.0	0.5	ROWAN	–17.3	17.8	10¾
PORTATION SERVICES	–9.5	–33.2	FEDERAL EXPRESS	–14.8	–31.3	33¾
DISTANCE TELECOMMUNICATIONS	–8.4	–32.8	MCI COMMUNICATIONS	–22.2	–50.4	21⅞
NUM	–7.0	–17.8	REYNOLDS METALS	–10.1	–3.1	50⅛

TUAL FUNDS

MORNINGSTAR INC

S

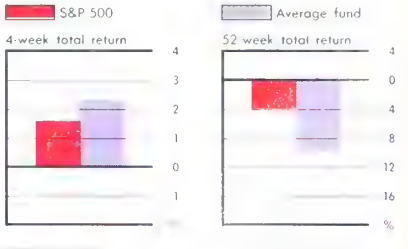
k total return	%
ED GROWTH	12.5
ITY SELECT COMPUTERS	12.2
ITY SELECT TECHNOLOGY	10.7

total return	%
ITY SELECT BIOTECHNOLOGY	31.0
ITY SELECT HEALTH CARE	20.2
Y STRATEGIES	18.7

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–11.2
EQUITY STRATEGIES	–10.0
STRATEGIC INVESTMENTS	–6.7

52-week total return	%
SHERMAN DEAN	–47.3
PRUDENT SPECULATOR LEVERAGED	–46.7
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–46.5



ATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
nt the present
f $10,000
d one year
each portfolio

ges indicate
total returns

Money market fund	Treasury bonds	Gold	U. S. stocks	Foreign stocks
$10,687	**$10,107**	**$9,653**	**$9,569**	**$9,040**
+0.14%	+1.24%	–0.76%	–0.04%	+2.21%

n this page are as of market close Tuesday, Nov. 20, 1990, unless otherwise indicated. Industry lude S&P 500 companies only; performance and share prices are as of market close Nov. 19.

Mutual fund returns are as of Nov. 16. Relative portfolios are valued as of Nov. 19. A more detailed explanation of this page is available on request.

THE FED SHOULD CHOP LENDING RATES—NOW

It's crunch time for the Federal Reserve Board. The Fed's cautious fine-tuning of the economy was O. K. as long as the goal was a soft landing. But a sharply falling economy has made that strategy moot. More forceful action is needed now. The Fed must begin an aggressive easing of monetary policy to prevent the nation's financial fabric from tearing apart. The banking system is under tremendous pressure. Should it begin to unravel, recession could easily become an economic disaster. Most independent economists now believe the economy has already fallen into a recession. Worse, the most recent data suggest that the slide is much steeper that anyone had anticipated. So far, the central bank's response has been unduly cautious. It has twice cut the key federal funds rate on overnight borrowing between banks—once on Oct. 30 and again on Nov. 16—but only by baby steps of one-quarter of a percentage point each.

To combat the steep recession of 1990, the Fed will have to lower rates much more aggressively than in past downturns because it will be harder to spur new lending and get the economy moving again. The banks are in far worse shape as the country enters this recession than at any time since the Great Depression. Defaults on Third World loans are still a problem for virtually all the money-center banks. Shaky loans for highly leveraged transactions are hurting many of them. Add huge portfolios of souring real estate loans, and you have a banking system on very wobbl

A business-as-usual monetary policy won't work. a are scrambling to meet their capital requirements. S would rather buy government bonds than make loans private sector. As a result, interest rates on loans t sumers and businesses will be slow to come down. a also want more profits in a hurry. That means the want wider-than-normal spreads between the interest they charge on loans and their cost of funds. The dan that rates will tend to remain higher longer durin recession. The banks' reluctance to lend at reasonable already has been a major drag on the economy.

Jump-starting the economy is up to the Fed. Mo policy must shoulder far more of the burden of mar the economy through the recession of 1990 because policy will be restrictive where it has been stimulativ hikes and spending cuts, particularly at the state and levels, will offset the cushioning effects of the varie come-support programs that kick in during a downtu

Monetary policy requires 6 months to 12 months to and the Fed is only now taking its first tentative steps. If it doesn't move fast, real estate will contin flounder, debt burdens will get heavier, banks will co to draw in their horns, and the odds of a very s recession will increase.

WHY WE SHOULD HELP FEED THE SOVIETS

While images of young American soldiers in the Saudi desert fill our evening television screens, History with a capital H is being made in the Russian snow. The Soviet empire is collapsing at astonishing speed and we, as a nation, watch from the sidelines not knowing what, if anything, our government should do. The prospect of an old enemy in possession of 10,000 nuclear weapons falling into anarchy should be every bit as worrisome to Washington as a Middle Eastern dictator armed with chemical and biological weapons.

But what to do? As winter approaches, the rationing of all basic foodstuffs has been announced for many big cities. Yet the 1990 Soviet harvest was bountiful. The problem lies with local farmers hoarding crops, waiting for a promised market economy and a rise in prices for their produce. They know that the creation of a free market awaits the outcome of seemingly endless negotiations between Moscow and the country's 15 republics to replace communism and one-party rule with a more decentralized political confederation.

Should the U. S. send food to the Soviet Union to avert a winter crisis? Yes. It will help buy time for the political negotiations between Moscow and the republics to reach a peaceful conclusion. Targeted assistance of food and medicine costing $200 million to $300 million can help prevent turmoil if the specter of starvation becomes reality. T Western eye, Mikhail Gorbachev's attempts at reorg tion of the Soviet government smack of one lame ga Kremlin musical chairs after another. But there is prog On the table at the moment is a Gorbachev deal Council of Federation, with positions for leaders of t republics, to coordinate national economic reform. It like a move toward political decentralization, which Yeltsin, president of the Russian Republic, has bee manding. But Gorbachev is also proposing a Chamb Control that would likely use the KGB, the police, an own political appointees to enforce his authority in t publics. So Yeltsin opposes it, and the negotiations go

The temptation to despair and walk away is grea most Americans. It should be resisted. It is easy to f how much progress has been made in dismantling the S dictatorship. Political freedom for Soviet citizens and vate market economy are now accepted goals in what just recently a closed communist state. The ongoing d between Moscow and the republics is now about much" and "how fast." It is a series of negotiations tha have a peaceful and positive end, if this winter crisis c avoided. Emergency U. S. food and medical aid deliv directly to those in need can keep those negotiations g

December 10

...BT WOES ▶ TV SPORTS GLUT

...W LEAD
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DECEMBER 10, 1990 A McGRAW-HILL PUBLICATION $2.00

FAREWELL, FAST TRACK

Motivating People in Difficult Times

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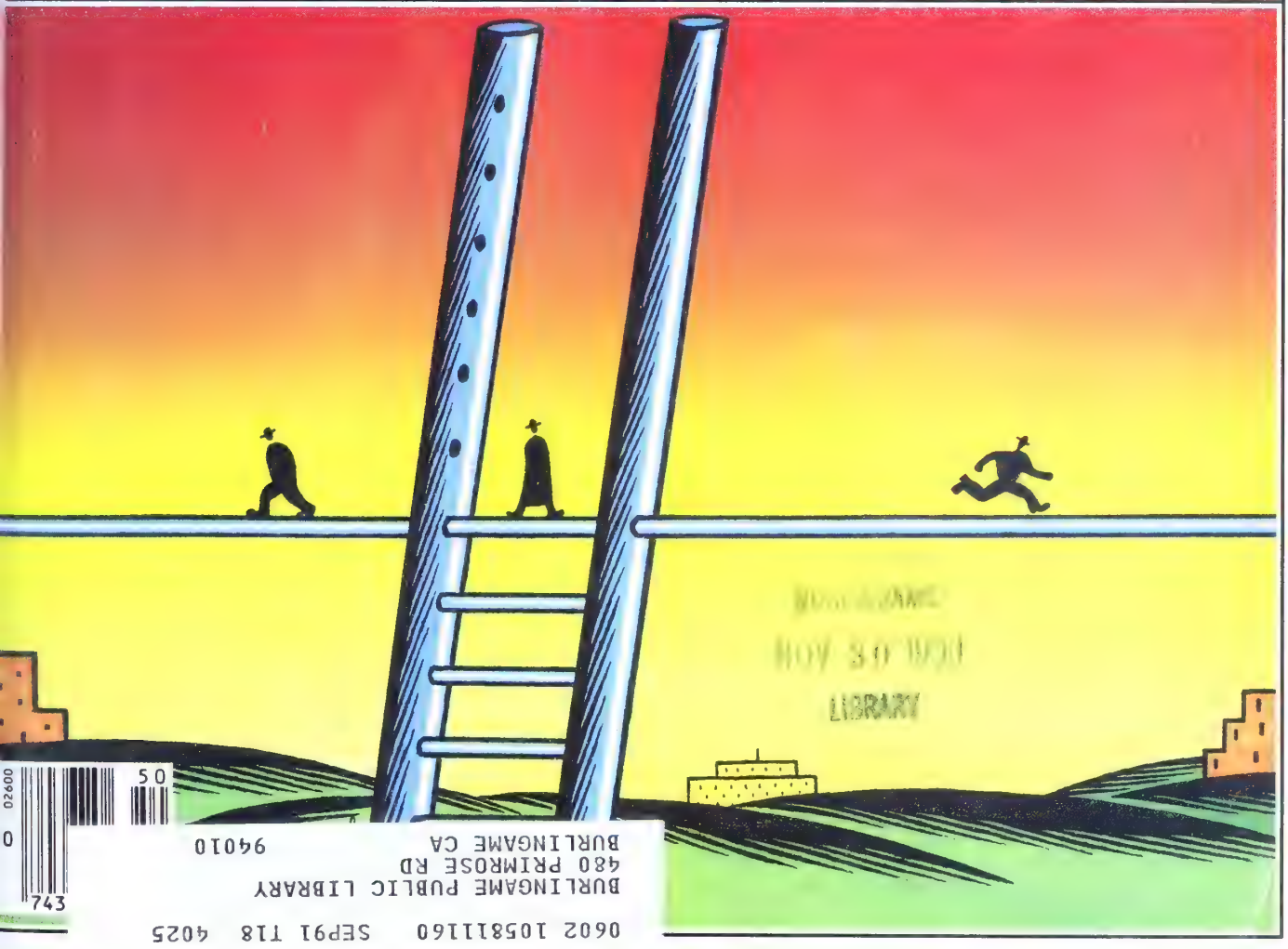

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e one that doesn't stand out at all.

Raytheon

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NUMBER 3191

BusinessWeek

DECEMBER 10, 19

MOTIVATING EMPLOYEES: AT W. L. GORE & ASSOCIATES, THERE ARE NO BOSSES AND NO ORDERS—BUT PLENTY OF SALES

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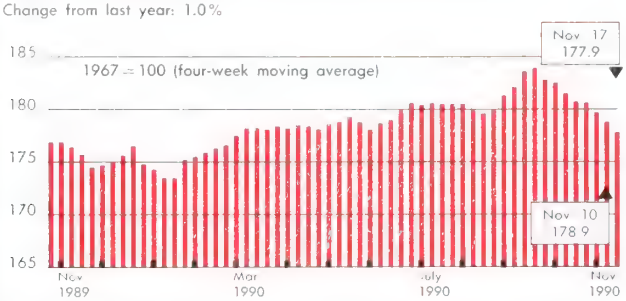
BusinessWeek Index

PRODUCTION

Change from last week: –0.6%
Change from last year: 1.0%

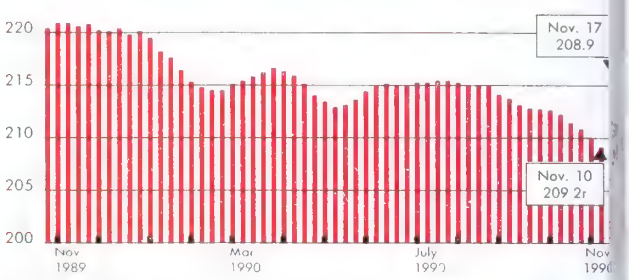


The production index continued to fall rapidly during the week ended Nov. 17. On a seasonally adjusted basis, auto and truck production plunged, and electric power and paperboard output declined as well. Lumber, rail-freight traffic, and paper production increased, while steel, crude-oil refining, and coal output were unchanged. Before calculation of the four-week moving average, the index declined to 175.5, from 177.8 in the previous week.

B.W. production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: –0.1%
Change from last year: –5.3%



The leading index declined for the week ended Nov. 17. It now stands at its lowest level since May, 1989, and continues to signal recession. For the latest week higher stock prices, lower bond yields, fewer business failures, and faster growth in real estate loans offset a decline in materials prices and a slower growth rate in M2. Before calculation of the four-week moving average, the index increased to 209.1 from 208.1 in the prior week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (11/24) thous. of net tons	1,904	1,912#	11.1
AUTOS (11/24) units	77,022	100,925r=	–4.5
TRUCKS (11/24) units	47,124	58,033r#	–1.8
ELECTRIC POWER (11/24) millions of kilowatt-hours	49,855	52,078#	–3.1
CRUDE-OIL REFINING (11/24) thous. of bbl./day	12,780	12,723#	–4.0
COAL (11/17) thous. of net tons	21,265=	21,380	3.0
PAPERBOARD (11/17) thous. of tons	750.0#	759.5r	3.9
PAPER (11/17) thous. of tons	770.0#	765.0r	3.1
LUMBER (11/17) millions of ft.	457.0=	443.1	–16.7
RAIL FREIGHT (11/17) billions of ton-miles	21.1#	20.8	4.5

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (11/28)	130	129	143
GERMAN MARK (11/28)	1.48	1.48	1.78
BRITISH POUND (11/28)	1.97	1.97	1.57
FRENCH FRANC (11/28)	5.01	4.98	6.08
CANADIAN DOLLAR (11/28)	1.17	1.16	1.17
SWISS FRANC (11/28)	1.27	1.25	1.59
MEXICAN PESO (11/28)[3]	2,933	2,923	2,654

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (11/28) $/troy oz.	385.000	380.000	–6.1
STEEL SCRAP (11/27) #1 heavy, $/ton	106.50	107.00	8.1
FOODSTUFFS (11/26) index, 1967 = 100	210.6	211.4	–1.2
COPPER (11/24) ¢/lb.	122.5	120.3	7.9
ALUMINUM (11/24) ¢/lb.	72.0	74.0	–4.6
WHEAT (11/24) #2 hard, $/bu.	2.75	2.77	–37.1
COTTON (11/24) strict low middling 1-1/16 in., ¢/lb.	67.43	69.59	2.9

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chan year a
STOCK PRICES (11/23) S&P 500	316.44	318.34	–7
CORPORATE BOND YIELD, Aaa (11/23)	9.25%	9.30%	
INDUSTRIAL MATERIALS PRICES (11/23)	102.2	103.1	–2
BUSINESS FAILURES (11/16)	306	348	2
REAL ESTATE LOANS (11/14) billions	$384.5	$383.6	8
MONEY SUPPLY, M2 (11/12) billions	$3,317.4	$3,319.2r	
INITIAL CLAIMS, UNEMPLOYMENT (11/10) thous	488	449	5

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chan year a
BUDGET SURPLUS OR DEFICIT (–) (Oct.) millions	–$31,462	$20,848	–20
ORDERS FOR DURABLE GOODS: MFG. (Oct.) billions	$129.4	$124.9r	
IMPORTS (Sept.) millions	$41,254	$42,283	6
EXPORTS (Sept.) millions	$31,840	$32,549	5

Sources: Treasury Dept., Commerce Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Chan year a
MONEY SUPPLY, M1 (11/12)	$819.6	$822.3r	
BANKS' BUSINESS LOANS (11/14)	318.5	319.3	–1
FREE RESERVES (11/14)	729r	284r	–15
NONFINANCIAL COMMERCIAL PAPER (11/14)	152.4	155.0	16

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (11/27)	7.62%	7.72%	8.51
PRIME (11/28)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (11/27)	7.98	7.83	8.31
CERTIFICATES OF DEPOSIT 3-MONTH (11/28)	8.26	7.96	8.27
EURODOLLAR 3-MONTH (11/21)	8.03	7.95	8.30

Sources: Federal Reserve Board, First Boston.

#Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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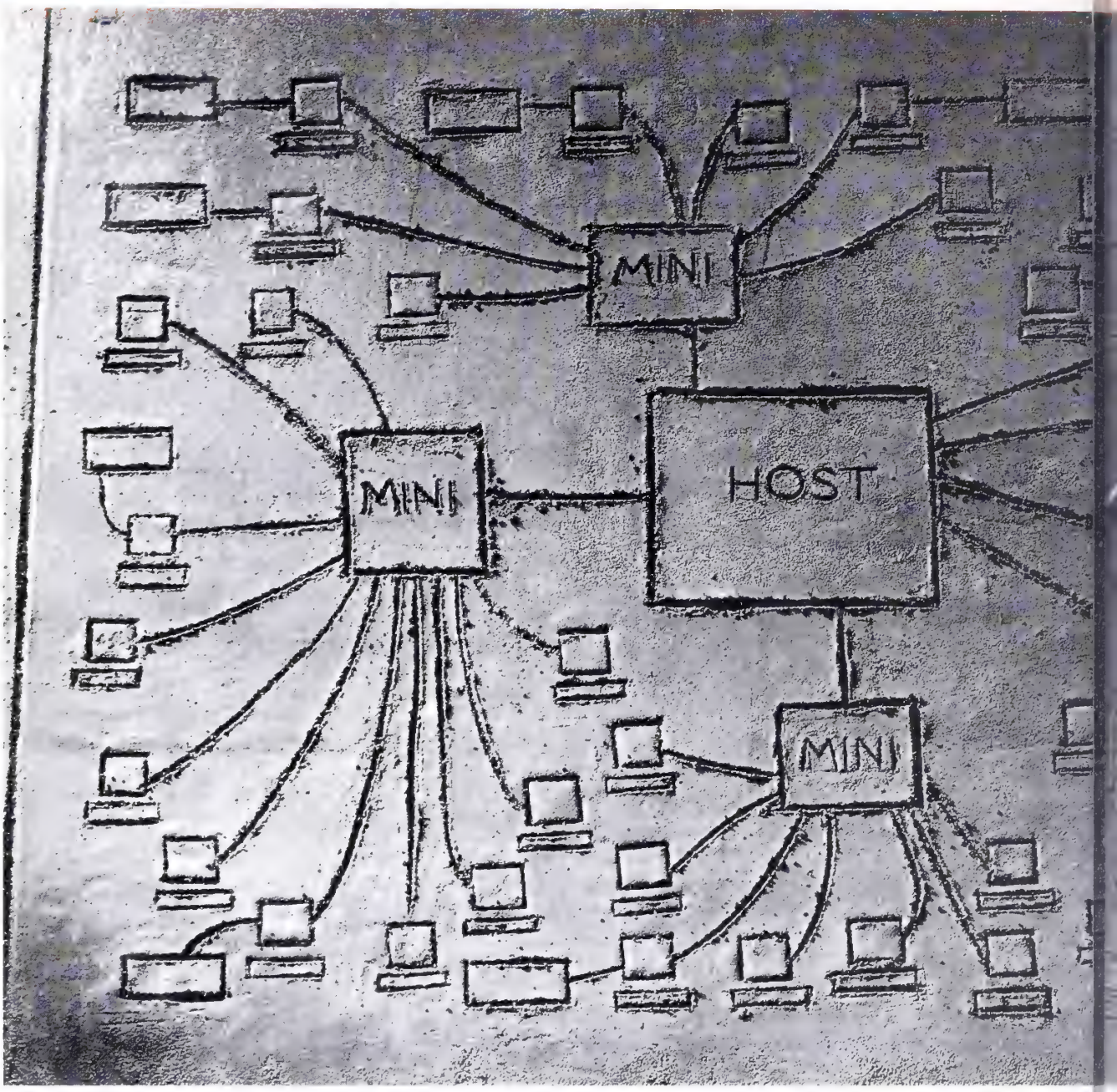

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Just ask anyone at RMC LONESTAR, the largest concrete company in Northern California.

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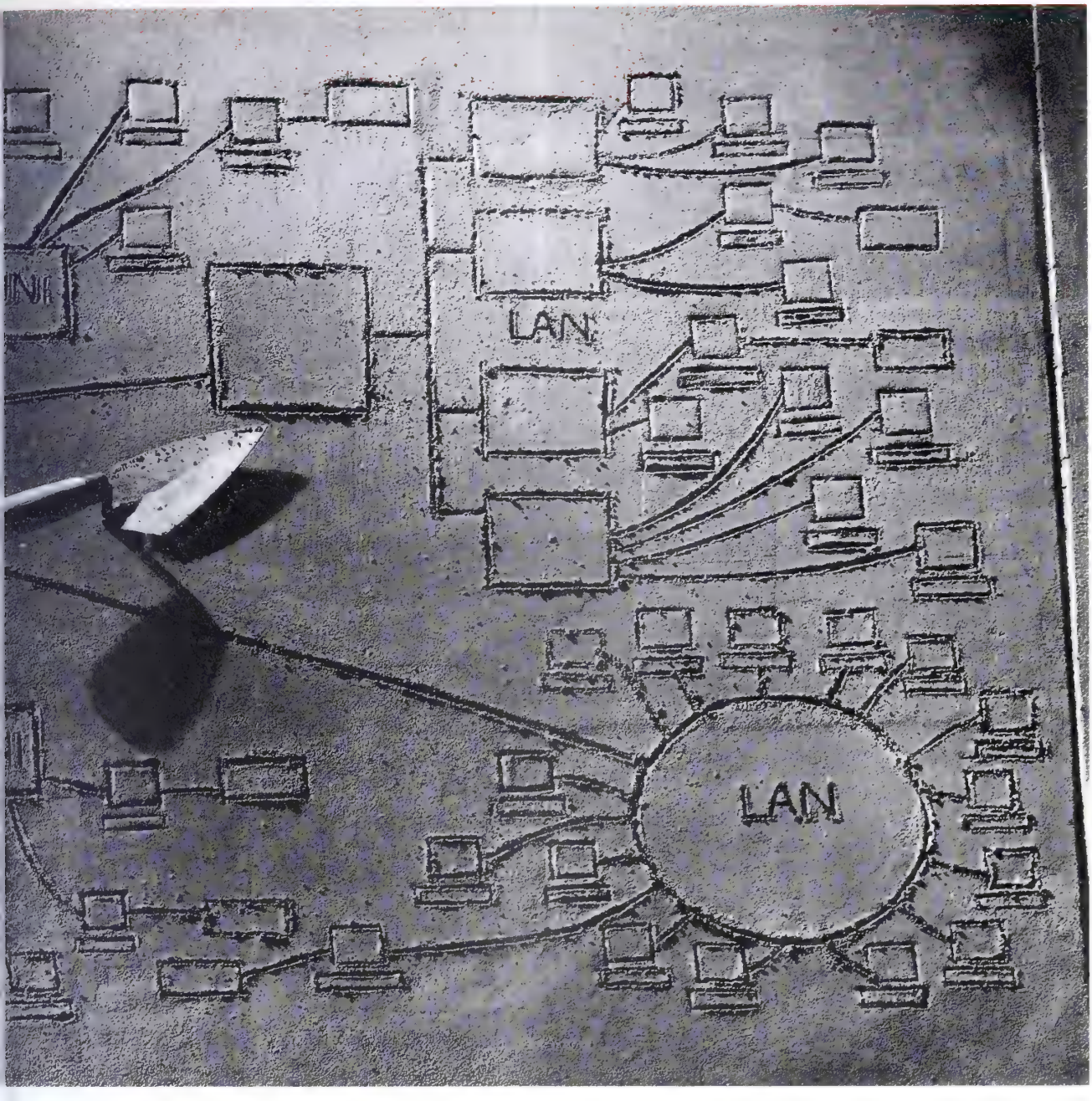

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Readers Report

SECRETARY MOSBACHER ON THE TRADE PACT WITH MEXICO

I congratulate you on your article "Is free trade with Mexico good or bad for the U.S.?" (Cover Story, Nov. 12). However, I'd like to make several points:

- A U.S.-Mexico free-trade agreement would create jobs for American workers and would lead to new business and infrastructure development for U.S. suppliers and transportation. As it is, 70% of Mexico's imports come from the U.S. A reinvigorated, dynamic Mexico would generate an increased standard of living for its workers.
- An agreement would not lead to a protectionist trading bloc in this hemisphere. Rather, it would promote mutual economic growth and improve the global competitiveness of North American industries.
- In Western Europe and Asia, economies that are rich in capital and technology are successfully combining with economies that offer abundant labor. By working together, the U.S., Mexico, and Canada can achieve the same results in North America. The industrial restructuring that would result is necessary because world business competition, already difficult, will become even tougher. Joining forces with its neighbors to the north and south would give the U.S. economy the strength and flexibility to meet that competition—and keep American workers on the job.
- Restructuring doesn't happen overnight. As with the U.S.-Canada free-trade agreement, a transition period would provide a smooth adjustment for U.S. workers and businesses alike.

Robert A. Mosbacher
Commerce Secretary
Washington

SALINAS LOOKS LIKE A FREE-MARKET PREACHER, TOO

I note that your story "Public service" (The Corporate Elite—Special Issue, Oct. 19) criticizes me for my support of "democracy and free-market economics" while I was ambassador to Mexico (you call it "preaching"). What, out of curiosity, would you have a U.S. ambassador espouse—totalitarianism and Marxism?

BUSINESS WEEK also states that this support of democracy and free-market economics "outraged Mexicans." Don't you mean some Mexicans—specifically those who were (and in some cases, still are) opposed to such policies? After all, the ink wasn't dry on the Bonus Issue before you published an excellent cover story on Mexico (Nov. 12). In that issue, you praise Mexico's dynamic young president, Carlos Salinas de Gortari, for trying to overcome what you refer to as "the ravages of decades of neglect." I gather that you believe President Salinas is improving his nation's prospects by preaching (do I dare say it?) free-market economics.

John Gavin
Los Angeles

PENSIONS: 'LEGISLATIVE OVERKILL' IS THE REAL STORY

Regarding your article "Pension squabbles: Battle lines may be shifting" (Legal Affairs, Nov. 19), the picture of the workingman unable to get a lawyer to take his case—like Nixon's picture of that little black-and-white terrier—is calculated to tug at our sympathies but does little to give a true picture of the state of pensions. A truer portrait would show the thousands of small businesses that are dropping their pension plans and even the big businesses that are establishing less regulated and less secure (at least, less definite and nongovernment-insured) types of benefit plans, leaving their workers with only a shaky Social Security promise to count on for their retirement.

The more serious problem, I submit, is with the not-yet-retired worker who won't have any pension, let alone one that may be $50 too light. Why are plans being dropped when for a quarter of a century or more, the trend was entirely in the direction of more and more pensions, to the point where some 30 to 40 million workers were benefiting? Because of a decade of constant legislative blitzes in the '80s—one almost every year—that heaped complexity, uncertainty, restrictions, and costs on private pension plans.

The new proposed legislation that you

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With A Strong Workers Compensation Syste

Suffering an on-the-job injury that keeps someone away from work—and away from a paycheck—is difficult enough.

Waiting weeks, or even months, for fair income replacement is nothing short of inexcusable.

Which is exactly why the Workers Compensation System was created.

It's a system that, for 75 years, has been dedicated to getting injured workers their income benefits in a fast, no-fault, no-hassle way.

The Bad News

Unfortunately, there are problems with Workers Compensation in some states. Serious problems that are spreading to other states.

Unnecessary litigation and underfunded, understaffed, state-administered agencies are slowing down the entire process. On top of that, in some states minor injuries are overcompensated and major injuries are undercompensated.

The Good News

In some states, Workers Compensation works without a hitch. Workers are compens quickly, and fairly.

But to bring that same quickness and fa ness to the troubled states today, and to strengthen all systems for tomorrow, we hav promote change. A few examples:

Simpler procedures, better communicat of rights and benefits, plus teamwork betwe doctors, employers and state regulatory agen would do wonders for the individual systems

So would agency-sponsored toll-free nu

Help Strengthen Workers Compensati

ured Workers Don't Have To Rely On This.

or injured workers to inquire about their
ie benefits. And consumer brochures out-
; specific workers' rights.
deally, alternative methods for resolving
nate disputes should be adopted—short of
to court. This would allow for quicker
ition of those disputes and faster income
its.

It's Up To All Of Us

To charge ahead and implement ideas like
you can do one of two things to help.
One: Be aware. Find out what's happening
ir state, how you're affected, and what you
o. Talk to your insurance company or busi-
rade association.
Or two: Share your views by writing to
Countryman, President and CEO of
Liberty Mutual, 175 Berkeley Street, Boston, MA
02117. We'll help you get in touch with people in
your state who can help.

Workers Compensation is too valuable
to neglect. It provides quality medical and re-
habilitative care. Delivers income benefits with
fairness and swiftness. And offers cost stability
to employers.

Remember, Workers Compensation was de-
signed to give American workers a solid system
they could rely on.

Let's make sure they always can.

LIBERTY
MUTUAL®

ause When A Worker Has An Accident, Everybody Gets Hurt.

wrote about is more of the same legislative overkill. With the statute's enticement to lawyers to take on the plights of presently unrepresentable pensioners because attorneys' fees and punitive damages are to become recoverable from employers, due process will quickly deteriorate into overdone process. That's great for the lawyers, but it's bad for employers and worse for pension plans that will surely race for the nearest exit to avoid such judicial juggernauts.

This is not another case of that wolf-crying boy, a fable invented by lobbyists. It is a fact to which every pension practitioner can attest under oath. If you are looking for an apt fable, try the one about killing the golden-egg-laying goose. And have you heard the one about the bald eagle that made like a dying swan?

Alvin D. Lurie
Chair
Special Committee
on Pension Simplification
New York State Bar Assn.
New York

WHY CLONES CAN'T KEEP UP WITH THE REAL McCOYS

In "Doing unto Compaq as it did unto IBM?" (Information Processing, Nov. 19), you failed to report the dealer loyalty to a manufacturer that has complete programs for sales, service, support, and value that companies such as Compaq provide every day.

In fact, Compaq pioneered many of these industry-standard programs. Many of the competitors that you mention keep telling dealers that they want to be just like Compaq in their products and programs. But less than a handful even come close.

Many clients who have bought clones are now buying brand names such as Compaq and IBM for the above reasons, which in the long run works out to be less expensive than buying the perceived-to-be-cheaper clones. Someone will always build cheaper computers, but will they be as good or better? Clone-buyers usually find that they get what they pay for.

Brian Quinn
President
MicroAge Computer Stores
Wakefield, Mass.

DOES STEPHEN WOLF'S LABOR RECORD NEED REVISION?

In your article "Cleared for takeoff" (Top of the News, Nov. 5), the statement that Stephen Wolf was recruited by the UAL board because of a record of "good labor relations" certainly raised a number of eyebrows around here.

Wolf's labor relations at previous airlines may have been good for the shareholders, but they were viewed quite differently by the people who worked at those companies. At a recent coalition meeting among United's three unions, former Flying Tiger and Republic Airlines employees described Wolf's labor-relations style at those carriers as manipulative and designed to circumvent the unions in order to extract huge concessions from workers.

So far, Wolf's approach to labor since coming to United hasn't done much to change that image. Wolf's relentless insistence on more productivity—meaning more concessions—coupled with his millions of dollars in compensation, has only angered employees whose unions are currently in contract negotiations with UAL.

In short, Wolf's labor-relations problems appear to be self-created.

Patrick Palazzolo
Communications Chairman
United Airlines San Francisco Council 34
Air Line Pilots Assn.
Burlingame, Calif.

CORRECTIONS & CLARIFICATIONS

In "When being a giant isn't enough" (Media, Nov. 12), we incorrectly said that Bertelsmann is larger than Time Warner Inc. In the first nine months of 1990, Time Warner's sales were $8.2 billion; Bertelsmann's were $6.4 billion.

IT'S TIME TO PAY THE TAB FOR THE REAGAN YEARS

In "Bush is burning the mantle he inherited from Reagan" (Economic Viewpoint, Oct. 22), Paul Craig Roberts says he's looking for an explanation of "how raising taxes can ward off recession." He need look no further than at his own beliefs, though from the reverse direction. If lowering taxes will raise government revenue and end the deficit some day, then surely, raising them will reduce revenue. This, of course, would stimulate the economy. Elementary economics.

With Roberts, it's fun to see how easy economics really is and how it lets us be imprudent without penalty. But perhaps we'll have to stop this "through-the-looking-glass economics."

We, Congress, and the President have mortgaged the future long enough. It was fun while the spree lasted, but the future is nearly here, options are being foreclosed, and the bill must be paid.

Richard A. Reeder
Lafayette, Calif.

KUWAIT INVESTED ITS WEALTH IN BUTTER, NOT GUNS

Your editorial "The Arab monarch must adapt or die" (Sept. 24), which it is stated that the Kuwaiti rul family, al Sabah, "has spent Kuwaiti wealth abroad rather than at hom should have read "invested" oil wea abroad.

Knowing that oil is a limited resou the Kuwaiti government invested ov seas to ensure future income for continued support of its welfare p grams at home, which include free e cation, interest-free home financing, nancial help to newly married coup and other utopian programs that are ality in Kuwait even as they remain litical promises elsewhere.

While Iraq, which is immensely ric in natural resources than Kuwait, incl ing fertile agricultural land, concent ed on investments in weapons for gression, Kuwait dedicated itself to welfare of its population.

M. A. Mai
São Pa

A DARTMOUTH B-SCHOOLER SAYS 'NO THANKS' TO GLAMOUR JOBS

Regarding "A report card on the b B-schools" (Readers Report, N 12), Joseph Cunningham argues t Harvard is the premier business sch in part based on its ability to find "gl orous" investment-banking and cons ing jobs for its students in the 198 These jobs have since lost their glam and can no longer be used as a meas of a business school's or a student's s cess upon graduation. The B-school dent of the 1990s is not motivated greed, and the desire for glamour j which Cunningham seems to retain rapidly disappearing. Believe it or we are actually more interested in lea ing about business than belonging t highly ranked school.

Most of my fellow students at Amos Tuck School didn't even apply Harvard for the very reasons Cunn ham cites as its strengths. It does phasize cutthroat behavior and inte distrust of colleagues. Contrary to beliefs, these are not the goals of day's business school students.

Nicholas La
Dartmouth Coll
Hanover, N

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THE BEST BUSINESS BOOKS OF 1990

The tide of business books kept rising in 1990, and plenty of them hit the high-water marks of publishing—bestseller lists.

Not all top sellers are good books, of course. But publishers' enthusiasm for business topics meant that an abundance of excellent books were issued. Among BUSINESS WEEK's choices for 1990's best business and economics books, two broad categories predominate: juicy corporate chronicles and works that illuminate America's competitive stature.

In the case of *Barbarians at the Gate: The Fall of RJR Nabisco* (Harper & Row), success and quality went hand in hand. The first question asked about the book was: What more could be said about a story on which so much ink had already been spilled? The answer: Plenty. Authors Bryan Burrough and John Helyar soaked the saga of the battle for RJR Nabisco in colorful, dramatic detail. They brought to life the get-rich-now financial maneuvering that symbolized the 1980s. Above all, they showed how personalities shaped the outcome. Ego, they made clear, soon overpowered greed as the contest's driving force.

While the RJR Nabisco struggle epitomized the Eighties on a grand scale, the tale of Barry Minkow, the California business whiz who turned out to be a con man, seems equally emblematic of the era. A self-made millionaire by 18, Minkow often boasted that his ZZZZ Best Co. would become "the General Motors of the carpet-cleaning business." In fact, he borrowed money to finance nonexistent work, borrowed more to pay his debts, and siphoned off cash. When he went to jail at 21, he had bilked investors of $100 million.

In Daniel Akst's *Wonder Boy: Barry Minkow—The Kid Who Swindled Wall Street* (Scribners), Minkow flaunts his wealth and exploits a marketplace willing to finance whatever shows a profit. With bravado and phony balance sheets, he maintains ZZZZ Best's image as a thriving company. *Wonder Boy* is a fast-paced account of an outrageous story.

Image was everything in the story of Minkow. And image, as Sally Bedell Smith tells it, also played a big part in the long life of William S. Paley, the man who built CBS. In the exhaustive *In All His Glory: The Life of William S. Paley* (Simon & Schuster), Smith demolishes Paley's assiduously cultivated pose as a tasteful patrician, creative genius, and consummate businessman. Her Paley is a liar who rewrote history to make himself look better and was quick to take credit for others' successes.

Smith also depicts Paley as a faithless husband and a womanizer; she's preoccupied with his personal life. Still, she provides a clear, complete account of his decades at CBS. And despite her apparent dislike for him, she never loses sight of his achievements.

Quite another sort of "inside story" is offered in *A Law Unto Itself: Power, Politics and the IRS* (Random House): Investigative reporter David Burnham takes readers inside the nation's largest bureaucracy and law-enforcement agency. His lucid, often impassioned report is disquieting.

The Internal Revenue Service, Burnham charges, abuses its power. Some apparent abuse is the product of ineptitude. But much abuse, he says, is deliberate. He cites cases where the IRS initiated audits, leaked derogatory information, and otherwise hassled people "who raised valid questions about its performance." He also describes how Presidents have used the IRS to attack political enemies. The potential for mi behavior, says Burnham, is growing.

In *Working for the Japanese: Insi Mazda's American Auto Plant* (Fr Press), Joseph J. Fucini and Suzy Fuci offer a richly detailed view of a Jap nese plant in the U. S. as seen from t line. It's not a happy place.

While hiring for the 1987 opening its Flat Rock (Mich.) plant, Mazda Mot Corp. promised a workplace where ma agement would respect and care for er ployees, the authors write. Then can 1988's heat wave. Production was hik without an adequate staff increas Management dragged its heels on ple for fans and wouldn't let workers dri water on the line. Workers felt betraye by United Auto Workers officials, wh eager to organize oth Japanese plants, so pedaled the problem Mazda's hopes for "third culture" mixi Japanese and American values remain fantasy, the Fucinis conclude.

One of the day's top business storie of course, is the savings and loan sca dal. Just out and still to be reviewed these pages, Martin Mayer's *The Gre est-Ever Bank Robbery: The Collapse the Savings and Loan Indust* (Scribners) offers a broader perspecti than previous books on the crisis. Wh many observers have cast the mess another example of Eighties exces Mayer looks further back. Since the F ties, he argues, S&Ls have been steep in cronyism and corruption. While n disagreeing with those who blame regulation, Reaganism, Congress,

GOOD READS FOR THE EXECUTIVE

A LAW UNTO ITSELF:
Power, Politics and the IRS
David Burnham

BARBARIANS AT THE GATE:
The Fall of RJR Nabisco
Bryan Burrough and John Helyar

IN ALL HIS GLORY:
The Life of William S. Paley
Sally Bedell Smith

SCALE AND SCOPE:
The Dynamics of Industrial Capitalism
Alfred D. Chandler Jr.

THE AGE OF DIMINISHED EXPECTATIONS:
U.S. Economic Policy in the 1990s
Paul Krugman

THE AGE OF UNREASON
Charles Handy

THE COMPETITIVE ADVANTAGE OF NATIONS
Michael E. Porter

THE GREATEST-EVER BANK ROBBERY:
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BusinessWeek

ɔnomic cycles, Mayer also points to nkers and Wall Street figures. And he ınts as crooks the lawyers and ac-ıntants who showed S&L operators w to skirt rules and fudge facts.

For writers on economics, competitive-ss proved to be the year's most fasci-ting issue. Several outstanding books ɔlore various aspects of the subject. Paul Krugman's *The Age of Dimin-ıed Expectations: U. S. Economic licy in the 1990s* (MIT Press) is a basic ɔort on the state of the U. S. economy d its prognosis. Krugman, a professor Massachusetts Institute of Technol-y, translates theory into enjoyable ɔse and makes difficult concepts seem ıple. As he walks readers through ːh topics as income distribution, unem-yment, the deficit, and competition ːh Japan, he explains fairly and com-tely how forces have interacted to di-ıish America's economic prospects.

Michael E. Porter's *The Competitive 'vantage of Nations* (Free Press), the ɔduct of four years of research in 10 ıntries by more than 30 people, docu-nts the attributes of industries and ːions that have succeeded in the inter-ːional arena. Its findings suggest ys for U. S. business to help itself.

Porter identifies four elements that are critical in developing international industries. His most important conclusion: Companies and their managers fare best when competition is intense.

A similarly monumental study is represented by *Scale and Scope: The Dynamics of Industrial Capitalism* (Harvard/Belknap Press), the most ambitious work yet by noted business historian Alfred D. Chandler Jr. The book analyzes the growth of the 200 largest companies in the U. S., Britain, and Germany from the 1880s through the 1940s.

> Two categories predominate: Juicy corporate chronicles and works that explore American competitiveness

Regardless of country, Chandler finds, successful corporations had in common their investment in three areas: management, production processes, and distribution techniques. *Scale and Scope* is exhausting to read, and Chandler, the careful historian, doesn't extrapolate to make bold statements about present trends. But his book is a trove of timely data that speak to all the major debates swirling around Corporate America.

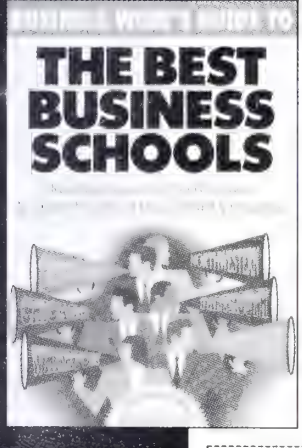
The most forward-looking of 1990's best books is Charles Handy's *The Age of Unreason* (Harvard Business School Press). Technology, writes Handy, has launched us into an era of wrenching, disjunctive change that will transform every aspect of our lives. In business, he detects the emergence of a "shamrock" corporation in which the core (the first leaf) keeps shrinking as organizations farm more work out to contractors (the second) and hire more part-timers (the third). This shift requires giving employees greater freedom and responsibility.

Rather than follow linear career paths, Handy says, people will have flexible "work portfolios." From the start, they may work part-time at one company, consult for another, and volunteer one day a week, or they may intersperse education and work. *The Age of Unreason* is an eloquent handbook for contemplating, coping with, and capitalizing on enveloping change.

BY DENISE DEMONG

Demong edits the Books section.

You can judge a book by its cover story.



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HOW FREE-MARKET DOGMATISTS KEEP PUTTING US IN THE DOGHOUSE

BY ROBERT KUTTNER

The world is such a far cry from a true free market that many attempts to make it more pure leave us worse off. To wit: Health care, S&Ls, and airlines

ROBERT KUTTNER IS ECONOMICS CORRESPONDENT FOR *THE NEW REPUBLIC* AND AUTHOR OF *THE LIFE OF THE PARTY*

In 1956, the economists R. G. Lipsey and Kelvin Lancaster wrote a famous paper called *The General Theory of the Second Best*. In simple English, the basic idea was this: Despite the theoretical promise that free markets will be perfectly efficient, the real world is not a textbook. It is full of necessary distortions, and piecemeal attempts to move closer to a pure market may make things worse. Therefore, we are often better off finding the best available "second best" rather than looking for an unattainable first best.

The 1980s, alas, are replete with proofs of the theorem. Attempts to improve on second bests, which in hindsight were not all that bad, produced third bests, or fourth bests, or absolute worsts. Take, for example, the health care system. Health care is, of course, not a pure market system—because society doesn't allocate the supply of medical treatment strictly according to the private ability to pay. Society doesn't think people should die on the street for lack of means to pay the doctor. So it provides health insurance, either privately or through the government.

ONE STEP AHEAD. The broad availability of health insurance, however, leads to inflation and new profit opportunities for the medical-industrial complex. So having tampered with the market once, via insurance, we need to tamper with it again to restrain escalating costs. Here, however, many of our economist friends have vainly pursued the "first best." In general, they argue that the private sector will do better at containing medical costs than the alternative of public regulation. But the 1980s proved the fallacy of this view. In our fragmented health system, profit-making hospitals kept one step ahead of the insurers' cost-cutters. They just found new ways to gold-plate treatments, complicate bills, and inflate costs. Beleaguered employers, despite a complex array of responses such as managed care and preferred provider organizations, didn't succeed in reducing medical inflation; mainly, they shifted costs to consumers or to the medicare/medicaid system. Costs went right on inflating.

It would be far more efficient, though less marketlike, to have a universal system with overall budgets imposed by government. As the experiences in Canada and Europe show, when doctors are paid a flat fee according to their caseloads, or hospitals are made to function within overall annual budgets, there is far less administrative expense and no incentive to complicate treatment simply to maximize income. Admittedly, this fiscal discipline forces difficult choices—but choices are forced under our system as well, and often on the basis of reimbursability rather than best treatmen

Or take the savings and loan debacle (Please!) The pure-market approach of totall unregulated savings banks was never a poss bility. The government, among its other finan cial entanglements, prints money, manipulate the prevailing interest rate, grants or with holds charters, certifies bank soundness, o fers deposit insurance, and so on. But the fre market crowd convinced Congress that would be a fine thing if S&Ls could be mor marketlike, free to innovate and to pursu profit opportunities anywhere. However, b cause of the risk of catastrophic loss to depos tors, Congress declined to revoke deposit in surance, which would have been a marketlik way to impose discipline. This "first best" sim ply wasn't practical. The rest, of course, i history. Instead of a second best, the attemp to fashion a freer market in savings and loan created an expensive worst.

Now, consider airline deregulation. Her worshipers at the altar of free markets pe suaded policymakers to remove regulation routes and prices. This presumably would cr ate greater competition, efficiency, and co sumer choice. But they underestimated the c pacity of airlines to reregulate themselves int a privatized cartel. Established airlines can up with sophisticated computerized pricin strategies to make sure that cut-rate, upsta competitors never gained a profitable footho The government—advised by free-mark economists who assured it that such predator pricing couldn't succeed—failed to pursue th necessary countervailing market "distortion namely, antitrust enforcement. As a resul there is little effective price competition, an the major carriers today have more mark power than they did before deregulation. Th first best—pure free markets—was unattai able, and government failed to pursue the se ond best.

One could go on. There are similar problem with marketlike approaches to pollution co trol, the auctioning of immigration slots, th use of hostile takeovers to "maximize shar holder wealth," and all of the other gimmick that so entrance economic purists. Supply an demand, with their capacity to set price signa and allocate investment, are powerful force indeed. But the world in which we live is suc a far cry from a pure free market that ma attempts to purify it only leave us worse of

Woody Allen once wrote a fable in which character who trifled with sorcery found hi self trapped in a grammar textbook, turne into a Spanish verb. I can think of one wor fate: to be made to dwell in the rigid gramm of an economics textbook.

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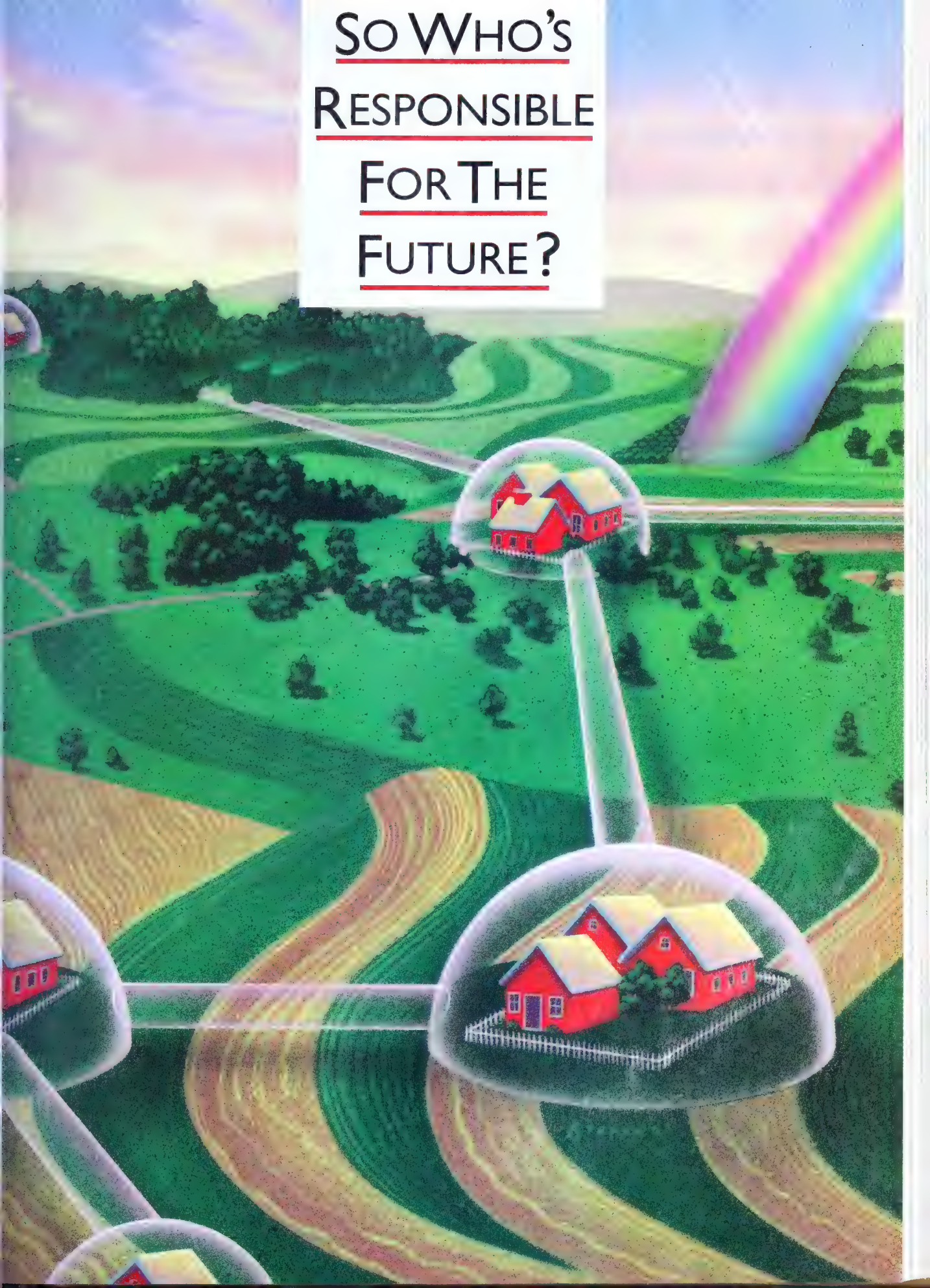
SO WHO'S
RESPONSIBLE
FOR THE
FUTURE?

BY GENE KORETZ

HOW MUCH WRECKAGE WILL THE HOUSING SLUMP CAUSE?

Many observers believe that the negative impact of the nation's ailing housing market on the economy is almost spent. Housing construction is already so depressed, they say, that it can't decline much further and subtract from economic growth.

Such relative optimism, however, seems belied by housing's continued downward trajectory and its behavior in past cyclical declines. "There is still little sign that we are nearing a bottom in the housing market," says economist John Savacool of WEFA Group.

Indeed, the housing slide may be accelerating. Housing starts fell in October for the ninth straight month, to a 1.04 million-unit annual rate—a startling 27% below their level just 12 months earlier. At last count, sales of new homes were running at a 503,000 annual rate, compared with 653,000 in 1989. And existing-home sales in October fell to their slowest pace in 56 months.

The biggest impact of the housing debacle on the gross national product lies ahead, warn Gert von der Linde and Richard Hokenson of Donaldson, Lufkin & Jenrette Securities Corp. The two note that while housing starts at the end of the third quarter were down 44% from their 1986 peak, real residential investment (the statistic that measures housing's impact on GNP) was down only 12%—an unusually large discrepancy.

Part of the gap reflects the obvious fact that much of the housing slump thus far has been concentrated in multifamily units, which cost less to build than single-family homes. Such units, mainly apartments, have hit a record low annual pace of 187,000 units, compared with 665,000 constructed in 1984. But von der Linde and Hokenson point out that quality improvements in single-family homes in recent years—more square footage and amenities per house—have also kept real residential spending from falling more sharply.

That should change now as the economic slump deepens. Multifamily construction may be touching bottom, say the two economists. But single-family homes still have a way to go—and so does real residential investment. While single-family starts are now down 33% from their prior peak, their average decline in the past five business cycles was a hefty 48%. Moreover, because builders typically shift to smaller and less pricey homes during a recession, outlays per unit should fall even more.

"The likely combination of a further contraction in single-family starts and a decline in the construction value of such starts," says von der Linde, "suggests that the recession will be more severe than many experts expect."

YOUNG WORKERS ARE BEARING THE BRUNT OF LAYOFFS . . .

While recent news stories have focused on the plight of mature workers who have been traumatized by unexpected layoffs, economist Martin Mauro of Merrill Lynch & Co. points out that workers under 25 have borne the brunt of job losses thus far. Civilian employment, as measured by the Labor Dept.'s household survey, fell by 678,000 from June to October, and 16- to 24-year-olds accounted for nearly 60% of that decline. At the same time, the jobless rate for this age group jumped from 10.3% to 11.8%, vs. a rise of less than a third of a percentage point (from 4.1% to 4.4%) for those 25 and older.

Unemployment among younger workers (and the overall jobless rate) would have risen even more, says Mauro, if poor employment prospects had not led many youths to quit the job market entirely. During the past year, the number of 16- to 24-year-olds employed or seeking work has shrunk by 844,000, and their labor-force participation rate has fallen by more than one percentage point. As in the last recession, many evidently are opting to go back to school. Labor Dept. reports show that the number of workers who left the labor force to attend school increased this fall for the first time since 1982.

. . . AND JOBS MAY GET EVEN SCARCER FOR GHETTO YOUTHS

If a recent National Bureau of Economic Research working paper is an indication, the deteriorating job market for youths may be even more damaging to the disadvantaged than many experts believe. In the paper, economist Richard Freeman reports on the impact of tight job markets during the 1980s on the employment of minority youths with a high school education or less.

Many observers have theorized that the old economic axiom that a rising tide lifts all boats no longer applies to black youths in inner cities. In this view, social pathology in the urban ghettos and the economic shift in the 1980s away from manual labor has reduced the employability of less-skilled youths even when unemployment is low. But Freeman's research, based on surveys in 1983 and 1987 in a number of metropolitan areas, indicates that disadvantaged youngsters still benefit from a strong economy.

Specifically, Freeman found that joblessness among disadvantaged young men, particularly blacks, fell markedly in areas with local labor market shortages. Such youths also earned appreciably more than their counterparts in areas with higher unemployment. And their earnings remained higher as they aged, indicating that the gains produced by tight labor markets aren't restricted to youths entering the job market.

"The evidence," says Freeman, "supports the contention that many of the problems of the inner city are not intractable, but the direct result of the loss of jobs in local labor markets."

A 'GIFT WRAP INDICATOR' THAT ONLY SCROOGE COULD LOVE

How strong a Christmas? Each year just before the onset of the holiday selling season, Peter Appert of C. Lawrence, Morgan Grenfell Inc. tries to answer this question by surveying major gift-wrap makers on their shipments to retailers. His current "gift wrap indicator" suggests that sales of nondurable goods (cars, refrigerators, and other durable goods are gift-wrapped only rarely) will be up a meager 3.1% from last year's holiday pace—and that retail sales gains overall will be the weakest since 1986.

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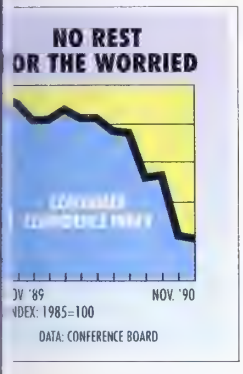
EMBER 10, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HE CONSUMER HAS SEEN THE FUTURE –AND GOTTEN DEPRESSED

he U. S. economic expansion would have celebrated its eighth birthday in November. Unfortunately, the party turned out to be a wake. Recession reads abounded in most of the October data. Initial reports for November also look grim, and there is little son to expect any improvement in coming months. To it simply: Consumers aren't spending. Businesses n't ordering. And no one is making any money.

Even Federal Reserve Board Chairman Alan Greenspan has begun to admit the gravity of the problem. In shington testimony on Nov. 28, he said that economic wth in the fourth quarter is likely to be negative and t the economy is now in a "meaningful downturn." In speak, that means recession.



The focal point of the economy's troubles is fading demand, and it's sliding fastest in the worst possible place—the consumer sector. Consumers make up two-thirds of the economy's gross national product.

Real GNP rose at an annual rate of 1.7% in the third quarter, according to the Commerce Dept.'s latest accounting. That was little changed from the ini- report, which put growth at 1.8%. Consumers played ig role in last quarter's economic growth, but they l be the largest drain in the fourth quarter.

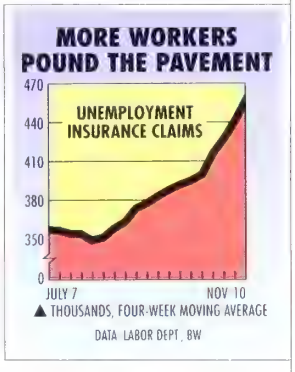
Consumer fundamentals are as poor as they have been any time since the last recession. The labor markets getting weaker by the month. Disposable income, usted for inflation and taxes, fell in the third quarter l should decline further in the fourth quarter. And useholds dug deeply into their savings last quarter, ving even less cash for the holiday shopping season.

ONFIDENCE LUNGES N FEARS F WAR

This may be the time of year when visions of sugar plums dance in children's heads, but most adult consumers are preoccupied with more sobering thoughts: ession, tax hikes, and the Middle East. All these wor- are making consumers tight-lipped and tightfisted. at's clear in the latest surveys of consumer attitudes. The Conference Board's index of consumer confidence l been falling through most of this year as economic ditions were beginning to deteriorate, but it plunged er the Iraqi invasion. In November, the reading stood 61.5—its lowest level since the last recession (chart). The University of Michigan's index of consumer sentiment has also plunged. Although the index inched up to 66 in November, from 63.9 in October, it has lost more than a quarter of its value since July.

Certainly, the gulf crisis is propelling fears about the future, but job prospects are also a big worry. The Conference Board reports that 86.2% of consumers think jobs are harder to find. That's up from 70.4% a year ago.

The upward trend in new filings for state unemployment insurance benefits supports that view. Claims have been soaring since the summer (chart). For the week ended Nov. 10, they shot up by 39,000, to an annual rate of 488,000. That's close to the 500,000 mark that has only been reached in a recession.



But even with gloom decking the halls, consumers seem to be expecting a kinder, gentler recession. In both consumer surveys, the indexes of expectations for business conditions six months from now have fallen by less than the readings on the current state of the economy.

Moreover, in both November reports there was a rebound in the percent of households that expect their incomes to increase within the next half year. These readings suggest that consumers, like the majority of economists, expect the recession to be over quickly.

DETROIT PLANS BIG CUTBACKS

But consumers' caution right now means that companies are facing a long winter. Already, the Christmas shopping season has started in a less-than-stellar fashion. Households are especially hesitant about big-ticket purchases. The Conference Board's survey of buying plans for November shows that only 24.8% of consumers plan to buy a home appliance any time soon. That's the smallest percentage in more than five years. And only 2.1% plan to purchase a new car, down from 3.3% in October.

That's bad news for Detroit. Car sales remained surprisingly steady right after the Middle East crisis began. But fatigue may now be setting in. In the first 20 days of November, new U. S.-made cars sold at a 6.8 million annual rate, down from 6.9 million in October and 7.6 million in September.

As a result, auto makers are scaling back their production schedules. Instead of the 6.8 million cars Detroit expected to make this quarter, it now projects only 6.3 million to roll off the assembly lines. Output is set to rise in the first quarter, but only to about 6.6 million. If sales

don't rebound, 1991 production could also be trimmed.

Meanwhile, the housing market continues to sink. In October, sales of existing homes dropped 4.7%, to an annual rate of 3 million—the lowest rate since early 1985. True, consumers worried about job security and recession aren't likely to rush out and take on a mortgage, but the housing industry is being hurt by much more than the recent economic downturn.

Home sales—both new and existing—have been in trouble for more than two years now. That's a result of changing demographics, affordability problems, and—in recent months—stricter bank lending requirements. Mortgage rates are less of a problem. They have fallen by a full percentage point since the spring of 1989.

The stagnant housing market is another reason consumers are worried. With home prices so weak, homeowners are feeling less wealthy. The recession means that the housing industry faces more trouble next year. And the outlook isn't much better for the manufacturers of goods and furnishings that go into a home.

ORDERS AND EARNINGS LOOK WEAK

Unfortunately, the weakness in the factory sector goes far beyond home goods. True, durable-goods manufacturers got a lift in October: New orders increased 3.6%, to $129.4 billion. But transportation equipment, mostly aircraft, accounted for all of the increase.

Demand for autos was also up in October, but given plant closings amid lackluster sales in November, car orders should fall back in coming months.

Excluding transportation equipment, new orders were down slightly in October. And although bookings are volatile from month to month, overall orders have gone virtually nowhere for more than a year. And with demand so sluggish, they aren't likely to make much headway any time soon. Not only are consumers cutting back on their big-ticket spending, many companies are straining to make ends meet as well.

Corporations reported a deceptively strong gain i their book profits in the third quarter. Earnings befor taxes rose $16.1 billion from the second quarter to a annual rate of $315.4 billion. But the quality of thos earnings was poor, because higher prices inflated th values of energy-related inventories. Profits from cu rent production, which are adjusted for inventory value and depreciation allowances, actually fell $11.7 billion, t $294.9 billion.

The darkest cloud over the profit outlook is the relen less decline in profit margins—the efficiency of Corp rate America in generating earnings. Profits as a pe centage of output in the nonfinancial sector fell sharpl last quarter, to only 7.2%, the lowest since the econom was coming out of the last recession (chart). And th drop was widespread among industry sectors.

Weak demand, which make it difficult to raise prices, is th chief problem, but there ar others. Labor costs are still ri ing rapidly. Productivity gain outside manufacturing hav been nil. And the debt burden heaped on during the 1980s a a further drain on corpora revenues. Net interest pa ments as a percentage of cas flow jumped to 28.8% in th third quarter. That's close to the record hit during th severe 1973-75 recession, but that level wasn't reache until three quarters into that slump.

With the current "meaningful downturn" just und way, the squeeze on the corporate sector is sure to g much worse. As a result, the unemployment lines w get longer, and consumers will get even shorter on bo cash and confidence. That means that at his next tes mony, Chairman Greenspan will have to come up wi yet another colorful euphemism to describe a recessio

THE WEEK AHEAD

CONSTRUCTION SPENDING

Monday, Dec. 3, 10 a.m.
Construction spending probably fell by about 1.2% in October, after dropping 2.8% in September, according to a survey of economists by McGraw-Hill's MMS International. The October loss is suggested by a plunge in housing starts for the month and the continued decline in construction jobs.

NAPM SURVEY

Monday, Dec. 3, 10 a.m.
The National Association of Purchasing Management's index of business activity likely slipped to 43% in November, from 43.4% in October. That would be the fifth consecutive decline. The low level of the index indicates that the factory sector has pulled the rest of the economy into recession.

NEW SINGLE-FAMILY HOME SALES

Tuesday, Dec. 4, 10 a.m.
The MMS consensus expects that new homes sold at an annual rate of 495,000 in October. In September, sales fell 6%, to a 503,000 pace—the lowest since the recession of 1981-82.

FACTORY ORDERS

Tuesday, Dec. 4, 10 a.m.
Factory orders rebounded a bit in October, probably by about 1.5%. That's suggested by the 3.6% increase in durable goods orders. In September, factory demand fell by 1.4%.

EMPLOYMENT

Friday, Dec. 7, 8:30 a.m.
Nonfarm payrolls likely lost an additi al 68,000 jobs in November, the sa decline as in October, according to t MMS survey. That's indicated by t steep rise in new claims for state une ployment insurance benefits in early N vember. As a result, the jobless rate l month probably bounced up to 5.9 from 5.7% in October.

INSTALLMENT CREDIT

Friday, Dec. 7
MMS reports that consumers probab added about $2 billion to their debt b dens in October. In September, inst ment credit increased by $3 billion.

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WORKING-CLASS METEOR

JOHN MAJOR PROMISES A KINDER, GENTLER THATCHERISM

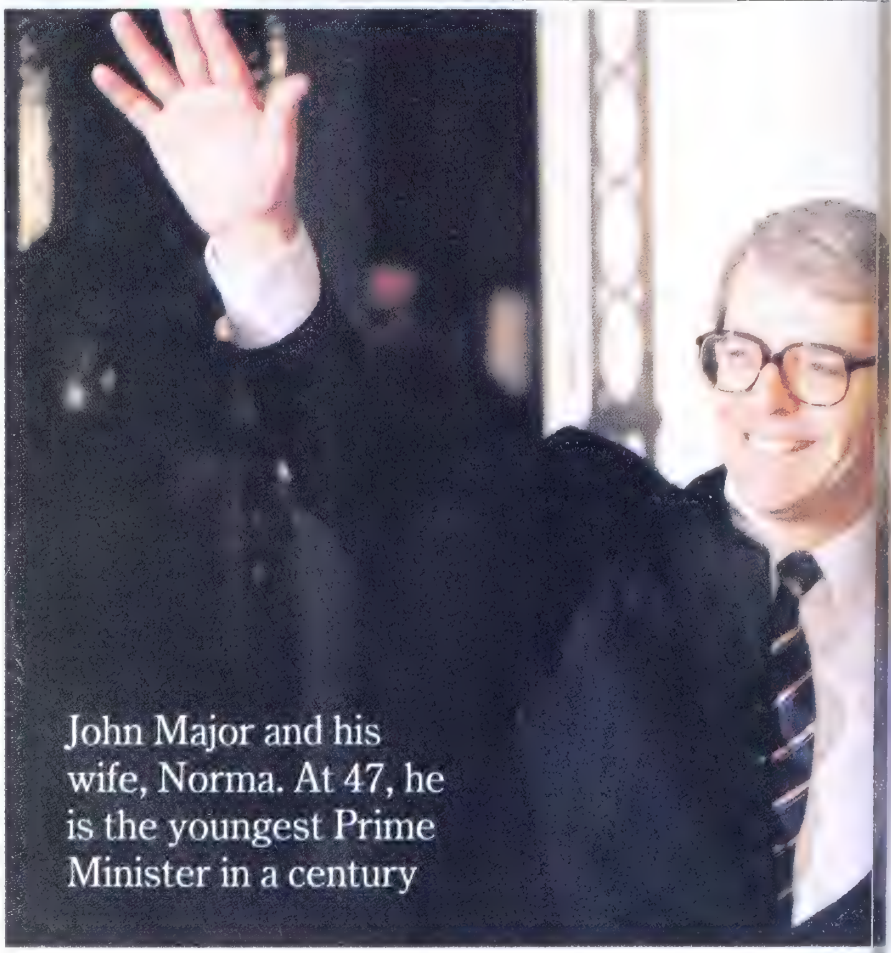
Back in the early 1980s, at a dinner at 10 Downing St., a lowly Conservative Party functionary named John Major got into a heated discussion with Margaret Thatcher over pensions. As standing up to the autocratic Thatcher could mean political suicide, "his colleagues were practically kicking his shins, trying to get him to shut up," one Cabinet member recalls. But Major stood his ground. Although he didn't know it at the time, Major had written his ticket for the fast track to the top.

How did he get away with it? Like Thatcher, he was difficult to push around. And in Major, who left school at 16 and rose from $6-a-week welfare handouts to a career in banking and government, Thatcher saw someone who embodied the qualities of ambition and enterprise she cherished. By October, 1989, he had climbed to the Treasury's top job, Chancellor of the Exchequer.

THATCHER AFTER BOWING OUT

Then lightning struck. Out of nowhere, a challenge by longtime rival Michael R. Heseltine forced Thatcher to quit. Emerging from a five-day party struggle was Thatcher's favorite—Major. Beaming, the new Prime Minister proclaimed a day after his Nov. 27 victory: "I want to see us build a country that is at ease with itself, a country which is confident, and a country that is prepared and willing to make the changes necessary to provide a better quality of life for all its citizens."

Whether Major can deliver is the big question. Despite the meteoric rise of his career, he has left few clues about his views or ability to govern. Yet Major—at 47, the youngest Prime Minister in a century—is inheriting a mountain of troubles. The Tories must call elections by the middle of 1992, so if he wants to hang on to his job, the man who appears to cast no shadow will have to distance himself quickly from Thatcher's abrasive style while shoring up her considerable economic achievements (page 26).



John Major and his wife, Norma. At 47, he is the youngest Prime Minister in a century

Major is in for a baptism of fire. In the Persian Gulf, where Britain is stationing 30,000 troops alongside those from the U. S. and other allies, he faces the increasing chance of war. At a Dec. 13 summit in Europe, leaders of the European Community will move far clos to monetary and political union—som thing Thatcher strenuously oppose And in Britain, Major somehow mu turn around an economy plagued high inflation, crippling trade defici and recession. "There is going to be a of bloodletting," worries Robert F. Fa cloth, executive director of conglomera BTR PLC. "How will we weather it?" M jor's response: "I don't promise you will be easy. I don't promise you it w be quick."

Unlike Thatcher, Major has no cle ideological bent. If anything, he is a l

l on social policy but a tough economonservative. Longtime friends and asiates give him high marks as a quick dy and dogged worker. He once was ected for a job as a bus conductor ause he was too tall and couldn't opte ticket machines fast enough. But grew up to have a "a steely determiion to conclude every project successly," recalls William G. Manser, who rked alongside the new Prime Minisduring his days as a Standard Chared Bank public relations officer in the 0s. He carried this reputation into vernment work. But unlike Thatcher, was known for a willingness to act others' views. "He took a lot of uble to make sure people knew he

s a listener," says one former official. it should come in handy as he seeks advance his agenda.

While Major remains a card-carrying nservative, "there is less desire for ical reform," says John Biffen, a y member of Parliament. Major imliately tossed Thatcher ideologues of the Cabinet, replacing them with ticians from the Tories' centrist and ral wings. Former Defense Secretary eltine, for example, was named Enviment Secretary and was given the of scaling back the unpopular poll that helped cause Thatcher's demise.

Major's other main rival, Foreign Secretary Douglas R. Hurd, will stay on to help manage the gulf crisis.

Major is already softening Thatcher's stance on social issues. He has made education a key priority. He is also likely to champion the state-funded National Health Service, which critics say was run down under Thatcher.

Like Thatcher, Major is hardly cut from royal cloth. The son of a onetime vaudevillian, he was raised in a two-room London flat. He still favors cheap Indian take-out, McDonald's burgers, and the fast food of Britain's working classes—baked beans and bacon on toast. But politics has long run through his veins. At 14, he began regularly haranguing passersby from a soapbox. Seventeen years later, he ran for Parliament, failing twice before being swept into office with Thatcher's Conservative revolution in 1979.

He didn't come out of the shadows until July, 1989, when Thatcher reached across more than a dozen superiors to tap him as Foreign Secretary. From then on he was known as Thatcher's unofficial successor—"Thatcher's poodle" in the press. "He is Margaret Thatcher, Mark II," scoffs Labor Party leader Neil G. Kinnock. Major didn't have much of a chance to dispel that notion during his brief stay at the Foreign Office. He had barely learned the dimensions of his job when Nigel Lawson resigned as Chancellor of the Exchequer over Thatcher's unwillingness to put the pound into the EC's currency system. Thatcher shifted Major into Lawson's slot.

DARWINIAN STRUGGLE. More comfortable with his new role, a powerful job that combines the powers of Alan Greenspan and Nicholas Brady, Major spent the last year wrestling with inflation and recession. He also coined a face-saving compromise to overcome Thatcher's opposition to a Franco-German plan for an EC central bank and common currency.

Major's compromise would give Europeans a choice between their national currencies and one issued by the new central bank. The new money would be left to fight it out for supremacy with existing currencies in a kind of Darwinian struggle. Thatcher saw the idea as a delaying tactic, but Major's popularity took a huge leap in October, after he convinced her to join Europe's monetary system.

For many Britons, it will take a leap of faith to believe this well-intentioned monetary technician can lead their troubled nation. But then, 11 years ago, few thought the grocer's daughter would ever serve so long. For John Major, the on-the-job training has begun.

By Richard A. Melcher and Mark Maremont in London, with John Templeman in London and William Glasgall in New York

Commentary/by Richard A. Melcher and Mark Maremont

SHE DIDN'T SPARE THE ROD—OR FINISH THE JOB

She was the Iron Lady, the flinty Prime Minister who defeated powerful trade-union bosses at home and Argentine generals abroad. She stood shoulder-to-shoulder with Ronald Reagan in the final years of the cold war and mounted a privatization campaign copied around the globe. Most of all, for more than 11 years, Margaret Thatcher symbolized a Britain fighting back against decades of decline.

Now she's gone, swept away in a Conservative Party coup. Is Britain better off than when she took power? Undoubtedly. She restored her country's pride and succeeded for a time in stemming its long slide. But she leaves her handpicked successor, John Major, some daunting tasks and a job essentially undone.

The Thatcher decade is a study in contradictions. She curbed the trade unions that were strangling the country, cut taxes, and redefined Britain's political debate. In fact, she yanked British politics so far back from its leftward drift that the Labor Party now preaches many of the same virtues as the Tories. Massive deregulation and a $65 billion sell-off of some 30 state-run companies, from steel to telecommunications, bolstered productivity and spread the gospel of share-owning capitalism. Revved-up British multinationals such as Glaxo, ICI, and Guinness went on expansion sprees worldwide.

HOSTILITY. But like many heroic figures, she was eventually done in by hubris. Increasingly strident and autocratic after each of her three election victories, Thatcher thought herself infallible. In the end, that led to grave political miscalculations, such as her imposition last spring of an unpopular poll tax that averaged $750 a head and hit the poor as hard as the rich. Her harangues against everything from monetary union to the growing power of the Brussels Eurocracy initially were met with an indifference that grew into outright hostility.

Thatcher was convinced that Britain's woes were rooted in the postwar welfare state, with its culture of dependency and its emphasis on redistributing the economic pie. So she focused on fostering individual initiative. In large measure, it has worked. The sharp rise in per capita income and homeownership during her tenure spurred the biggest shift from working class to middle class in generations.

But her success in opening up Britain's hidebound social structure was partial at best. The enduring class structure continues to support an educational system geared toward the elite 15% of students who go to universities. That's about the lowest level in the EC. Moreover, despite 11 years of Thatcherism, the nation's attachment to such welfare-state programs as free medical care is as deep as ever. "Britain's problems go back 100 years or more," says Keith Pavitt, a University of Sussex science-policy expert. "Mrs. Thatcher hasn't changed anything."

In the later years of her leadership, Thatcher also resorted to old-fashioned economic pump-priming to keep her support from flagging. That violated her own simple rule—to manage the economy with the prudence of a housewife. She unleashed a credit-fueled consumption boom by handing out hefty pay increases to government workers and dropping monetary restraint.

FALLEN STARS. The boom was illusory. Inflation is at 11%, and the trade deficit is close to $50 billion. With gross national product growth falling to 1% or less, 1.7 million Britons are out of work. Homeowners, who saw the value of their real estate nearly double between 1985 and 1989, are now struggling to pay 14% mortgages.

Among the biggest victims of Britain's slowdown is the once-thriving service sector. No longer fed a diet of easy money, it is imploding. The humbling of such Thatcher-era stars as British & Commonwealth, Sock Shop, WPP Group, and Saatchi & Saatchi bears witness to the dozens of financial, retailing, and advertising firms closing or struggling to survive.

Thatcher's supply-side promise has also not fully paid off. Manufacturing output and investment are still around 1979 levels. Her decision not to emphasize education and to cut research and development may account for much of the generally poor showing. And by downplaying education, training, and research, Thatcher set up low-wage, low-skill Britain for competition for new foreign investment not only from such EC members as Spain and Portugal but also from Eastern Europe.

Such shortcomings don't make Margaret Thatcher a failure. If she hadn't tried to wrench Britain into the modern era, it would undoubtedly be in even worse shape today. Instead of asking whether Britain got too big a dose of Thatcherism, maybe the right question to ask is whether it got enough.

THATCHER'S REPORT CARD

ACCOMPLISHMENTS

- Shrank state-owned companies from 10% of GNP to 3.9%. Raised $65 billion by selling 30 state companies. Privatized municipal housing
- Curbed labor-union powers, cutting days lost to strikes 86%
- Turned $18.1 billion government deficit into $5.9 billion surplus
- Reduced top personal tax rate from 83% to 40%
- Deregulated financial services industry, axed foreign exchange controls
- Fought for deregulation of industry and public procurement throughout European Community
- Attracted billions in foreign investment from Japan and elsewhere

FAILURES

- Manufacturing output barely above 1979 level, and trade deficit soaring
- Education lagging, with acute shortages of science and math teachers. Only 15% of high-school students go on to universities, half EC average
- National Health Service declining despite 50% real increase in government health care spending since 1979
- Infrastructure crumbling. With spending trailing other EC members, railroads and highways aging and badly congested
- Income distribution widening, with rich growing much richer while poor failed to advance
- Harsh anti-Europe rhetoric often isolated Britain within EC

DATA: BW

IVERSAL STUDIOS: OPERATING PROBLEMS AT THE FLORIDA THEME PARK HURT MCA

IGHTS, CAMERA, UCTION

hy Matsushita walked off with MCA at a modest price

No one was breathing a word about a deal. MCA Inc.'s two top officers, Chairman Lew Wasserman and President Sidney Sheinberg, re sipping California wine and chatg about movie stars and politics with sahiko Hirata and Keiya Toyonaga, o senior execs of Matsushita Electric lustrial Co. They, Hollywood superaıt Michael Ovitz, and a pair of transors had gathered in Wasserman's verly Hills home in mid-October.

But the small talk only imperfectly ered the crackling tension that filled room. Electronics giant Matsuta, eager to secure a ready sup of movies and TV shows for its eo recorders and high-definition sets, had watched archrival ıy Corp. snap up Columbia Pices Entertainment Inc. last year, lucing to three the number of jor independent studios. MCA, ıerved at the spiraling costs of king movies and building theme cks, long had been casting ut for a deep-pocketed partner. t the pressure intensified last ır, as 77-year-old Wasserman tched Time Inc. buy Warner mmunications Inc. All of a sud, MCA, so long Hollywood's big , found itself dwarfed by globgiants.

Reason enough to want a deal. t Wasserman, after that initial eting, also felt quite comforte with his Japanese suitors. "A spark flew," says one Wasserman associate. "And Lew got pretty excited that he had the right partner." That didn't mean the deal was a sure bet. Wasserman, tough and thoroughly stubborn, had walked away from so many other negotiations that some analysts were convinced he would accept no less than $90 a share. He ended up taking far less. And the Japanese, known to take their time, were rushed to come to terms.

On Nov. 26, after a grueling week of shuttle diplomacy, all-night meetings, and at least one near-collapse, Matsushita agreed to pay $6.13 billion, or $66 a share in cash, for MCA. Since the law prohibits foreign ownership of TV stations, MCA's WWOR, based across the Hudson from Manhattan in Secaucus, N. J., will be spun off to shareholders in a side deal valued at $5 to $6 a share.

'NOT SHABBY.' Wall Streeters, perhaps pining for a return to '80s-style deal mania, sniffed at the price. They probably shouldn't have. The fact is, asset values for entertainment companies have plummeted in the months that Matsushita and MCA were courting. "MCA still got a very good multiple of 15 times operating income," points out First Boston Corp. analyst Jessica Reif. "Not shabby."

Just coming to terms was pretty impressive, too. A year ago, Matsushita had hired Ovitz, who had advised Sony on the Columbia acquisition, to find the right property. He chose MCA because of its huge film library and growing record business. In early September, he sounded out Lazard Frères & Co. Managing Partner Felix Rohatyn, an MCA board member, on a linkup with Matsushita. Ovitz thought his Japanese clients would consider a range of $75 to $90 a share—or as much as $7.6 billion.

Matsushita, advised by Ovitz and investment banker Herbert Allen, moved ponderously. Asking for reams of financial data, the Japanese company sent Hirata (page 28) to lead a legion of lawyers and number-crunchers to camp out at Ovitz's Creative Artists Agency headquarters in Beverly Hills. Their worries: declining values of MCA's considerable Los Angeles real estate holdings, plus operating problems at its Florida Universal Studios theme park. By that time, the economic climate had chilled, and $90 a share went thataway.

An impatient MCA got a break when word of the talks was leaked to *The Wall Street Journal*. "At this point, our side had not met anyone from Matsushita, and we were only talking with Ovitz," says one source involved in the talks. Matsushita officials in Osaka finally confirmed their interest. Ovitz hastily set up the face-to-face at Wasserman's house.

Teams for both sides met on Sunday night, Nov. 18, over red snapper and filet mignon at New York's Hôtel Plaza Athénée. The meal went on for 2½ hours without mention of a deal. "We've had two dinners now, and no negotiations," says a participant. The next day, at Sheinberg's Trump Tower apartment, the Japanese at last started to close in, stressing that they wanted Wasserman, Sheinberg, and other high-ranking MCA execs to stay on. Later that day, at the office of Wachtell, Lip-

HOW MCA FITS INTO MATSUSHITA

	Annual revenues* (Millions)
MATSUSHITA BUSINESS LINES	
VIDEO EQUIPMENT	$10,000
COMMUNICATION AND INDUSTRIAL EQUIPMENT	8,600
HOME APPLIANCES	5,100
ELECTRONIC COMPONENTS	4,900
AUDIO EQUIPMENT	3,500
MISCELLANEOUS (batteries, kitchen products, bicycles)	5,600
MCA BUSINESS LINES	
FILMED ENTERTAINMENT	1,740
MUSIC	765
BOOK PUBLISHING	189
OTHER (television station, studio tours, retailing)	690

*fiscal year ended Mar. 31 1990 **year ended Dec. 31, 1989

DATA: COMPANY REPORTS

ton, Rosen & Katz, MCA's law firm, Ovitz offered $60 a share—about $5.1 billion. Rohatyn replied: "You're so far off it's not worth talking."

LAST BID. The next day, Ovitz raised the bid to $64 a share. But the sides were still $6 a share apart. By the night before Thanksgiving, the deal looked dead. Hirata and Toyonaga, who conferred every day by phone with President Akio Tanii, had trouble getting approval to go higher. Wasserman said he would put the $64 offer before the board in a conference-call meeting set for noon on Thanksgiving, but he would recommend against it. Matsushita's public-relations firm started preparing a press release describing termination of the talks.

Much of the Matsushita team then scattered for the holidays, while Sheinberg and Wasserman stayed in New York. They went to Wachtell Lipton's 29th-floor office on Thanksgiving for the board meeting. At that point, Allen broke the gathering gloom by calling from his car phone with word that one last bid was coming. Ovitz, meanwhile, was persuading Hirata to go a bit higher. Hirata and Toyonaga brought it all to a climax by arriving at Wachtell Lipton and offering another $2 a share.

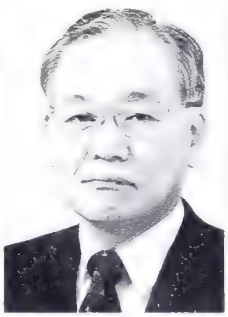
The Japanese felt that they now had to sell the deal to the American public. To avoid the sort of outcry that followed the Sony-Columbia deal, the two sides agreed to sell off MCA's concessions at Yosemite National Park. The company also hired Washington lobbyists to try to quell congressional opposition.

The MCA board met to consider the deal on Sunday. Twelve hours later, directors approved it. Sheinberg and Wasserman explained that MCA needed capital to build new theme parks overseas and make acquisitions. Directors understood that but worried that the price was too low. Then Rohatyn delivered the clincher. He reminded the board how few companies could do a deal of this size. "This was in the public domain for 2½ months," Rohatyn says. "And I had not gotten one telephone call." In the end, MCA had nowhere to turn but toward Matsushita.

By Ronald Grover in Los Angeles and Judith H. Dobrzynski in New York

JAPAN'S UNLIKELY HOLLYWOOD SCOUT

Masahiko Hirata, Matsushita Electric Industrial Co.'s point man in the talks with MCA, isn't one of Japan's new internationalists. He doesn't speak much English or hobnob with Western celebrities. But for scrutinizing the fine print on a contract, President Akio Tanii couldn't have picked a better surrogate. It was a poker-faced Hirata who sharply reduced Matsushita's own valuation of MCA's assets—setting the hard line taken at the negotiating table.



HIRATA SET THE HARD BARGAINING LINE

Unlike Tanii, an engineer who spun the VHS video format into a global standard, Executive Vice-President Hirata, 59, earned his stripes almost entirely in finance. Hirata entered Matsushita's accounting department in 1954 and moved in 1967 to 51%-owned subsidiary Victor Co. of Japan (JVC). "In those days, he was already a star," recalls a former colleague. Recognizing the potential of JVC's VHS video system, he made it the group's priority. Hirata went back to headquarters in 1984 as chief financial officer and rose to his current post in 1988.

While at JVC, Hirata worked closely with software chief Seiichiro Niwa, who spearheaded Matsushita's earlier, small-scale forays into Hollywood. But Hirata apparently harbored ambitions for splashier projects. When the MCA news broke, no one seemed more shocked than Niwa, who had likened Sony Corp.'s earlier purchase of Columbia Pictures to Americans buying Japan's famous Kabuki theater on the Ginza.

Tanii's plan is to keep his hands off MCA's management. Beyond that, he's mum. But as custodian of the deal, Hirata is the logical person to watch over the merger. A music-lover and theatergoer, Hirata won a prize many years ago for the best short story submitted to an in-house Matsushita magazine. "If I were not a businessman, I would want to be a novelist," he once confided to a friend. Having helped plot the company's most daring move, Hirata is the closest thing Matsushita has to a scriptwriter.

By Neil Gross in Tokyo

FOREIGN INVESTMENT

CONGRESS LETS DOWN A DEFENSE

It allows a law guarding high-tech concerns from foreigners to laps

When Congress trudged hom in late October, it left in t lurch an interagency comm tee that monitors foreign purchases U. S. defense contractors. Legislati authorizing the Committee on Forei Investment in the U. S. (CFIUS) was ina vertently allowed to lapse.

But for Japan's giant $1.1 billi Fanuc Machine Tool Co., the oversig was propitious. Fanuc's bid for 40% Moore Special Tool Co. in Bridgepo Conn., for $10 million had set off alarm at the Pentagon. Moore is the so source of the extremely accurate grin ers and measuring devices that the E ergy Dept. uses to fashion critical co ponents for nuclear warheads.

'HARD-BOILED.' When the transacti was proposed in September, it became of only 12 investigations ever launch by CFIUS. The Defense, Commerce, a Energy Depts. expressed grave concer over the Moore deal.

It's not clear that Fanuc will close deal while CFIUS is in limbo. "The leg community is still operating under t presumption that the law will be newed," says a CFIUS official. On Dec. the committee is to recommend wheth President Bush, even without legal a thority, should try to block the sale.

CFIUS officials expect that Bush co pull it off—but probably not without fight. "A pretty hard-boiled compa might say: 'That's interesting news, b it doesn't have the force of law,'" say Fanuc representative in Washington. can't imagine we'd do that, but on t other hand, we wouldn't just fold up tent and walk away, either."

If Fanuc doesn't act quickly, it co face a more daunting regulatory gau let next year. When it returns in Ja ary, Congress is likely to try to g CFIUS sharper teeth. Representative M Levine (D-Calif.) is set to introduce a to protect all strategic industries fr foreign domination.

Fanuc would really be playing tou if it tried to close a deal while CFIUS w in the twilight zone. Then again, Fan may figure now is the time to act—b fore the public and Congress beco any more hostile.

By Paul Magnusson in Washington, w bureau reports

UST WHAT DETROIT NEEDS: 00,000 MORE TOYOTAS A YEAR

second U.S. plant will aim output squarely at the domestic market

he announcement projected a confidence bordering on brash. One month after General Motors Corp. id it would permanently close four ants and take a mammoth $2.1 billion ird-quarter charge, Toyota Motor rp. on Nov. 27 said it would build a cond, $800 million factory in Georgewn, Ky.

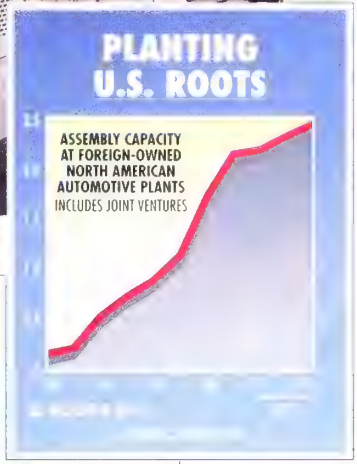
Like the existing Georgetown plant, e new one officially will ve a capacity of 200,000 mrys a year. But the curnt plant already is turning t cars at a rate of 220,000 a ar and could easily raise at to 240,000 or more with ditional overtime. That exproduction is explicitly inded for the U. S. market. yota's stated goal is to sell million cars and trucks in nerica by the mid-1990s. yota now sells about),000 vehicles in the U. S.

ORTFALL. The emphasis on mestic sales is a sharp const to the 1980s, when anaits claimed that Japanese plants in America would ach Detroit how to export. at hasn't happened. Honda otor Corp. promised in 1987 at it would export 70,000 rs by 1991, including 50,000 Japan. Excluding minor ipments to Canada, howev-, Honda exported only ,867 cars in the first nine nths of 1990, fewer than rysler Corp.'s 17,368. nda officials now say that e 70,000-car target won't be t until the mid-1990s. For part, Toyota had planned export 100,000 engines and ,000 cars from its current orgetown facilities. Those ures haven't been increased.

The expansion, then, amounts to an mission that Toyota is out to build S. sales. And that means taking sales ay from Honda. "Clearly, Toyota nts to make damn sure that they outl their chief rival here, which is nda," says Christopher W. Cederen, senior auto analyst at J. D. Power Associates, a market research firm in oura Hills, Calif. Honda's plant in rysville, Ohio, opened in 1982 to produce 150,000 cars a year, has grown to a 510,000-car complex. Honda's Accord, meanwhile, has become the best-selling car in America.

Toyota's production boost won't be the last by a Japanese carmaker in North America (chart). Nissan Motor Co. is finishing an expansion of its Smyrna (Tenn.) plant that will double its capacity to 450,000 by 1992. In addition, Nissan is mulling an engine plant in either Tennessee or Alabama and is looking to import small cars from a Mexican plant if a U. S.-Mexico free-trade pact is approved.

KENTUCKY-MADE CAMRYS: DRAWING A BEAD ON HOT-SELLING HONDA, TOO



For Japan's carmakers, building U. S. sales is a mighty stiff challenge, though, especially in the face of higher oil prices and an economic downturn. And they risk stirring up fresh anti-Japanese sentiment. Japanese auto makers claimed 28% of the U. S. new-car market in the first 10 months, and industry officials back in Tokyo are worried about a political backlash if Japan's market share tops 30%. Nissan President Yutaka Kume calls the 30% level a "touchy zone." But that doesn't mean that the Japanese have any intention of reining in their sales efforts.

U. S. car companies aren't holding back, either. Says Toyota Executive Vice-President Robert B. McCurry: "Some companies in Detroit are doing O. K., some divisions in Detroit are doing O. K., and some are not." In the first 10 months, GM's share of the car and light-truck market edged up to 35.9% from 35.4% a year earlier, while Nissan's slipped to 4.5% from 4.6%.

Moreover, not all of the eight Japanese companies building cars and trucks in the U. S. and Canada are prospering. Subaru of America Inc. is offering incentives of up to $1,400 on its '91 Legacy, built at a plant in Indiana. That hasn't cleared away much inventory, though. Subaru had a huge 300-day supply of vehicles on hand at the end of October. A normal end-of-October inventory for a Detroit carmaker would be 68 days' supply.

A BUYOUT? Toyota doesn't have such problems. In fact, even with the extra plant, it may need more capacity. The company says it wants to make half of its targeted 1.5 million cars and trucks in America. Combining the U. S.-bound output from Toyota plants in Kentucky and Canada with its share of production at New United Motor Manufacturing Inc. (NUMMI), a GM-Toyota joint venture in California, Toyota will have about 660,000 North American-built vehicles by 1995. One way to boost that to 750,000: buy out GM's share of NUMMI in 1996.

Such a plan assumes that Toyota's sales reach the 1.5 million level and that GM won't need the California plant by then. That may not happen. But it's at least possible. And that vision of the future is a warning that persistent overcapacity is only a problem for companies that can't sell their cars.

By James B. Treece in Georgetown, Ky.

Commentary/by Chris Welles and Michele Galen

MILKEN IS TAKING THE FALL FOR A 'DECADE OF GREED'

Minutes before sentencing deposed junk-bond czar Michael R. Milken on Nov. 21, Federal District Court Judge Kimba M. Wood noted that many people had written letters to the court seeking "a verdict on a decade of greed." They wanted Milken punished for helping cause the economic damage of the 1990s. But Wood insisted she would sentence Milken mainly on the specific crimes he committed. "Our system of justice," she declared, "protects everyone from being sentenced on supposition."

Yet supposition on Milken's role in the Greed Decade seems to have figured prominently in her unexpectedly harsh sentence. Ordering him to 10 years in jail and three years of full-time community service, Wood clearly wanted to raise the penalty for white-collar crime (page 236). But many of the rationales she offers for the sentence seem inconsistent and weak.

SURPRISE. Most notably, the punishment is way out of proportion to the crimes Milken has admitted and those Wood herself found he had committed. "It was a sentence of unprecedented severity in a white-collar-crime case," says James B. Jacobs, a criminal-law professor at New York University. "It looks like Milken is being accused, in general, for the recession, the S&Ls, and for all of the problems of the American economy."

Though Milken could have received 28 years, Wood's sentence took even prosecutors by surprise. It greatly exceeds federal sentencing guidelines for crimes after 1987, under which Milken would have gotten between two and five years. Milken will technically be eligible for parole as soon as he goes to jail. But given the notoriety and size of the case, Milken may have to remain behind bars for at least six years, says former prosecutor Bruce A. Baird, who led the government's probe of Milken.

Along with much of the general public, Wood appears to have given credence to the government's claim that, as she phrased it, Milken "is one of the most villainous criminals Wall Street has ever produced." Future disclosures could support that claim, but it grossly exaggerates what has been established in court.

In a plea bargain last April, Milken admitted six narrow felonies involving dealings with arbitrageur Ivan F. Boesky and money manager David Solomon. The government then persuaded Wood to hold a special hearing in October so that it could show Milken's wrongdoing was far more pervasive and serious than the felonies he admitted to. Presumably because they were bolstered by powerful evidence, prosecutors chose three deals to prove Milken manipulated stock, traded on inside information, and bribed money managers. And it introduced incriminating evidence on such matters as obstruction of justice.

JUDGMENT DAY: 'A SENTENCE OF UNPRECEDENTED SEVERITY'

Wood found that Milken had sought to obstruct justice by, for example, subtly "signalling" employees to destroy documents immediately after Boesky pleaded guilty and agreed to cooperate with the government. But she threw out nearly all of the government's remaining allegations. And on the key government claim that criminal activity was central to Milken's operations, she said the evidence was "sparse and equivocal."

> Federal guidelines suggest that a suitable sentence would have been from two to five years in prison

In leaping from these conclusions to a sentence of 10 years in the slammer, Wood followed tortured logic. Milken had a habit, she said, of "stepping just over to the wrong side of the law." Yet she speculated Milken did not go further because that would increase the risk of getting caught. Without explanation, she claimed his "subtle," hard-to-detect crimes warrant greater punishment than "blatant" ones—in effect penalizing Milken for how far he might have gone if he hadn't been afraid of getting caught. Milken partisans argue that he simply was not inclined to engage in more flagrant crimes.

CLEAR SIGNAL. At the sentencing, Wood pointedly told Milken that defendants who cooperate fully with the government may merit a "significant reduction" in jail time. That seemed a clear signal that she intended the prospect of many years behind bars to spur him to spill the beans, which would be consistent with her apparent supposition about the sweeping scope of Milken's guilt. Yet that reasoning conflicts with her actual findings about Milken's crimes. Ironically, the less guilty Milken is, the fewer beans he has to spill and the less chance he has of seeing his sentence reduced.

Finally, Wood offered the rationale of "general deterrence." Yet she provided no evidence Wall Street needed such a harsh warning. Milken's experience even before he was sentenced ought to be enough to strike terror into the hearts of aspiring lawbreakers. He has been publicly humiliated and vilified for four years, not to mention fined by the government to the tune of $600 million. He faces possible hundreds of millions of dollars in civil judgments.

Milken surely deserves some jail time. But Wood's unduly harsh sentence satisfies mainly those who are prospecting for scapegoats for the 1980s. Justice seems to have gotten short shrift.

HIS FARE WAR OULD REALLY CLEAR THE AIR

shakeout threatens weak carriers as healthy airlines turn up the heat

Until a few weeks ago, it was Christmas as usual for Pattie McGuinness and her husband, ı. Pattie, a bartender in Vail, Colo., l planned to stay put for the holiday cash in on the big wave of vacationing ers. Then she saw an ad in her local wspaper hawking two-for-one fares on ıumber of airlines. Now, the young ıple plans to fly to Boston to show off ir infant daughter to Pattie's broth- and sisters. Total cost: $450 round) on Continental.

Great deal for Pattie. Bad deal for ntinental Airlines Inc. and the rest of U. S. airline industry. With the na- ı's airlines ravaged by soaring jet- l prices, the last thing they needed s a deep-discount fare war. Trouble the threat of recession is crippling ffic, and cash is in short supply. So airlines have reverted to a bad habit: shing fares to fill their planes. Most cutives admit that the move is unlike- to generate addition- revenue. And with industry choking on ses that could hit a ord $1.4 billion in 0 (chart), "this is t irrational," says uis Valerio, senior e-president for fi- ıce at UAL Corp.

Maybe so. But this e war is the first in a g time that was initi- d by the healthiest S. carriers—Ameri- ı and United—not weakest. It signals roader move by the s of American, Unit- and Delta to turn up heat on their most ubled brethren: East- ı, Continental, Pan ı, and Midway. Near- half of the seats in air today are con- lled by carriers in ying degrees of fi- ıcial distress. But ile the troubled are ting on Uncle Sam's r for some sort of ef from the current shock, the strong n't even endorse the oying effort. "It's in [the healthy airlines'] interest to increase the pressure," says Thomas G. Plaskett, chairman of Pan Am Corp.

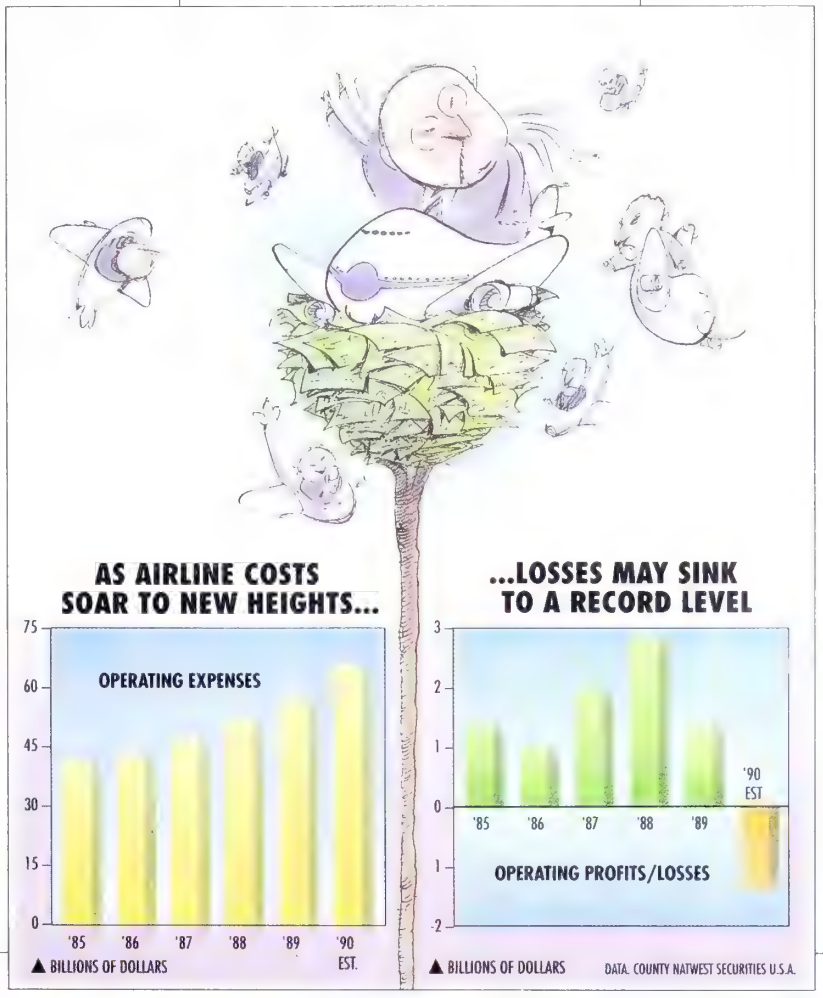
The weak links do have some powerful friends. On Nov. 26, U. S. Bankruptcy Judge Burton R. Lifland allowed Eastern Air Lines Inc. trustee Martin R. Shugrue to draw down $135 million from an escrow account to operate the crippled carrier until spring—despite a projected $560 million loss this year and cries from unsecured creditors for Eastern's immediate liquidation. The money brings to $380 million the amount Shugrue has taken from the account. That leaves little, if anything, for creditors.

Transportation Secretary Samuel K. Skinner will probably reject a number of the weaker airlines' pleas for help. But in the name of competition, he's considering a 180-degree turn on foreign investment in U. S. carriers. "Sam the Hammer" took a hard line on interpreting the government's 25% investment cap when KLM-Royal Dutch Airlines sought to invest in the leveraged buyout of Northwest Airlines Inc. in 1989. But now, loosening that limit to scare up foreign capital for ailing carriers is "one of the options we're looking at," says Skinner. In Illinois, state officials are contemplating more direct support: a $15 million loan to troubled Midway Airlines Inc. to help it stay in business.

While such moves aren't likely to stave off the ultimate consolidation of the airline industry, they could delay the bloody winnowing of the weak. The stronger carriers deny any unsportsmanlike conduct, but it's clear that they're unwilling to give an inch in the fight for market share. "The notion that we are reveling in this while weaker competitors are suffering is nonsense," says American Airlines Inc. Executive Vice-President Donald J. Carty. But he adds: "You don't have to be a mathematician to see that a bunch of people are just going to run out of financial resources."

'VERGE OF COLLAPSE.' The extent of the industry's pain is clear. Eastern would be grounded by now were it not for Judge Lifland. And since Iraq invaded Kuwait, the bad news has become a steady drone: USAir slashes payroll, Midway pulls out of Philadelphia, Continental puts its Pacific routes on the block, losses at Trans World Airlines Inc. mount. Says Pan Am's Plaskett, who just agreed to sell the carrier's prized London routes to United: "It's an industry on the verge of collapse into three carriers."

Relief from the fuel shock was supposed to have come in the form of fare increases: Airlines have upped domestic fares by 15.3% since August. But the hikes haven't stuck. Sluggish traffic has left a glut of seats, and the continued presence of desperately discounting carriers such as Eastern has kept downward pressure on fares. Throughout most of Eastern's 20-month bankruptcy proceeding, archrival Delta Air Lines Inc. kept its distance from Eastern's kamikaze cuts. But now, with Eastern's first-class-for-coach promotion making a dent, Delta is matching all of Eastern's coach fares. It has also come out swinging



on the public-relations front against what it calls subsidized competition. "Sometimes, you just have to wade in," says a Delta spokesman.

American fired the first salvo in the current fare war. In November, it mailed a coupon to its frequent fliers in Chicago and Nashville offering a $50 companion ticket with the purchase of a regular seat. United and Midway immediately responded with $25 companion coupons. Then came Delta. When Northwest started giving companion tickets away for free, the promotion spread. "It got out of control," says American's Carty, who blames rival marketing executives. But "the fare structure is crumbling," says Salomon Brothers Inc. analyst Julius Maldutis. "And the fact that it fell apart so rapidly indicates the severity of lack of traffic growth."

FUTURE SHOCK. The problem is, everybody suffers. No carrier feels it can afford to lose market share and cash flow to the competition by not matching discount fares. But since the tickets are often booked for travel months later, discounting can hurt yields far into the future. United's Valerio says many passengers are flying at reduced fares today because of a massive fare war in August. The carrier was hoping to make that up over the winter with the 15% fare increase. But those hopes died with the current two-for-one promotion.

Indeed, the fare war has darkened an already dim outlook for the first quarter of 1991. Unless fuel prices subside, most analysts predict that first-quarter losses could be as bad as this quarter's. Air Transport Assn. President Robert J. Aaronson predicts an industrywide cutback of flights and 10,000 more layoffs following the Christmas flying rush. That's on top of some 10,000 jobs that have disappeared since August.

For consumers such as Pattie McGuinness, the industry's travails may be good news—for a while. Most analysts expect another fare war after Christmas to spur traffic during one of the industry's slowest seasons. And while airlines always try to charge full price for last-minute business trips, a recession could even put pressure on those fares, says Douglas C. Birdsall, president of consultant Travelmation Corp.

Eventually, unless the government can find a way to keep competition alive in the skies, this may be the consumer's last hurrah. "The haves—American, United, and Delta—will do well once the collapse takes place," says United's Valerio. But with so much less competition, the traveling public may wind up being the have-nots.

By Michael Oneal in New York, with Seth Payne in Washington and bureau reports

SEMICONDUCTORS

OSHMAN: WHETHER IN LIGHT SOCKETS OR ROBOTS, NEURONS "WILL BE AS COMMON AS NAIL

IS THIS THE CHIP THAT WILL LAUNCH A THOUSAND GIZMOS?

Echelon's Neuron chip is versatile—but its market potential is in doul

When Apple co-founder A. C. "Mike" Markkula asked M. Kenneth Oshman to head his fledgling network company two years ago, he knew it would be a tough sell. The tiny startup planned to design chips to automate everything from homes to factories to cars. To succeed, his Echelon Corp. would have to get hundreds of manufacturers to put Echelon's chips into their products. "I thought he was crazy," recalls Oshman. Evidently, it takes one to know one: Within weeks, Oshman changed his mind and enlisted.

The job has had its ups and downs. Last year, Oshman nearly closed Echelon, based in Palo Alto, Calif., because of limited sales opportunities. But now, armed with a broader array of products, he is ready to test the market. On Dec. 5, Echelon is set to announce details of its proprietary network technology. It will also name 15 initial customers that are expected to use its chips in consumer electronics and automotive, building, and factory automation products.

The key is Neuron, a programmable controller chip. It will enable electronic products to exchange information over phone wires, power lines, cable, or radio waves. A home network could be programmed to turn on the water heater an hour before the morning shower, for instance. An auto plant retrofitted with Neurons could ease automation without installing expensive new wiring. Eche n also sells a $10,000 system to help c s tomers design products using the Ec lon network. Neurons, Oshman boas "will be as common as nails."

A founder of phone-switch mak ROLM Corp., Oshman made his fortu when IBM bought the company for $5 billion in 1984. His reputation has help attract $25 million in venture capital r Echelon. And if he just manages to ge piece of the potential market for au mation chips, it could pay off handsom ly. Sales of home controllers may gr from $938 million this year to $2.2 bill in 1995, according to Parks Associates a Dallas market research firm.

'A CRAPSHOOT.' Yet there's a go chance that Echelon's low-cost, do-it strategy will fall flat. Some network e perts question whether its technolo can be economical and effective for bo a light socket and an industrial robot. I don't hear anybody in consumer el tronics mentioning Echelon," says en neer Brian E. Markwalter of Cons tants Choice Inc., an Atlanta netwo testing firm. Even Markkula conce that the linchpin of Echelon's strateg selling Neurons for a dollar apiece—is t least five years off.

Moreover, some key pieces of Ec lon's network remain unclear. One is e protocol, or software language, that e fines how products from different ma

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facturers exchange data. Another is the method for sending signals over a power line. Some of its potential customers are hardly champing at the bit. One that Echelon will present as an "early adopter," Johnson Controls Inc. in Milwaukee, says it has no firm plans for using Neurons in its building controls.

Make no mistake: Oshman is adroit at maneuvering in uncharted waters. He turned ROLM from a maker of military computers into a powerhouse in telecommunications equipment, an entirely new field. But this time, he's trying to create a new market from scratch. Says Robert M. Metcalfe, a founder of 3Com Corp., an Echelon investor: "It's a crapshoot." And it's looking like Oshman will need more than just luck.

By Robert D. Hof in Palo Alto, Calif.

HEALTH INSURANCE

BITTER CHOICE: BROKEN PROMISES OR BROKEN BUDGETS

New accounting rules and soaring costs force cuts in health care plans

When a beneficent federal government created medicare 25 years ago, many employers came up with what they thought was the perfect fringe benefit: a pledge to pick up all retirees' medical expenses that the feds didn't cover. With both health costs and the retiree population relatively small, management could make workers happy with little impact on the bottom line.

Or so it thought. Today, these promises are giving employers ulcers. Medical costs are spiraling. The number of early retirees not yet eligible for medicare is soaring. And the worst is yet to come. In early December, the Financial Accounting Standards Board is expected to approve a controversial rule requiring companies to account for long-term retiree health costs on their balance sheets, starting in 1993. Those unfunded liabilities—totaling as much as $400 billion—could wipe out many companies' net worth.

TRICKY BALANCE. Business has been grappling with the rule's repercussions since 1987, when FASB first started seriously considering it. And the outlook for retirees isn't cheery: About 70% of companies surveyed by Hewitt Associates, a benefits consulting firm, already have cut back on coverage they promised workers (table).

Most companies have chosen to leave current retirees alone, aiming the changes at future retirees. Some are imposing caps on the amount they pay for each retired worker. Others are basing benefits on years of service. "Companies face two challenges—to provide a meaningful benefit and to provide an affordable benefit," says Cynthia K. Hosay, a senior vice-president at Martin E. Segal Co., benefits consultants. "The balance is hard to achieve."

Some worry that the balance no longer tilts in the retirees' favor. "Ten to 15 years down the road, workers who retire will have a whole lot less security than retirees today," says Judith C. Hushbeck, labor economist at the American Association of Retired Person

Companies contend they have litt choice. Libbey-Owens-Ford Co., an aut motive supplier in Toledo, is sitting on demographic time bomb. Retirees a count for more than half of its heal care tab, and nearly 40% of its retire are too young for medicare, which kic in at age 65. Since 1986, its new retire have had to pay deductibles and co-i surance. "We've tried to be sensitiv but health care costs are out of control says benefits director Randall D. Berg

Many companies are injecting so certainty into future costs by limiti the amount they will spend on each ret ee. Vons Cos., a Los Angeles-based gr cery chain, gives retirees "credits" th can use only for health expenses. E ployees with 10 years of service recei $20,660 they can use throughout reti ment. The credits will be indexed annua ly at up to 4%—far less than the 1 annual rate of medical inflation.

Until now, American Telephone Telegraph Co. paid the full cost of ret ees' health bills. Starting this year, i imposing caps. For medicare retire who need family coverage, it is contr uting $1,800. That's more than enou today. But, says AT&T health cons tant Michael J. Gulotta, "over tin the cost of coverage will rise, a there is no promise by the company increase those limits."

CUSHION THE BLOW. All these chang could spell trouble for current wo ers. "I'll be living on a fixed incon and paying the extra money could c ate hardships," says Brenda J. Leg 50, an AT&T communications tech cian. Elsewhere, retirees in po health could use up allocated cred early in their retirement. And in economy where workers change jo often, many may never meet any mi mum service requirement.

To soften the impact of the cu some employees may be forced to d lay their retirement until they are e gible for medicare. Patricia L. Wilso a benefits expert at A. Fost Higgins & Co., says that co hurt companies trying to enco age early retirements.

Although companies cutti back on retiree benefits will able to report far smaller liab ities, they haven't necessarily g a grip on the problem. High health care costs could fo many to clamp down even mo That won't do much to plea suspicious workers who alrea fear the gold is slipping out their golden years.

By Susan B. Garland Washington

RETIREES START TO FEEL THE PINCH

Faced with growing medical benefits liabilities, many companies are cutting benefits promised to future retirees. Here's a sampling:

GILLETTE Retirees will have to pay a portion of their monthly premiums. Newly created employee stock ownership plan will pick up the balance

LIBBEY-OWENS-FORD Unionized retirees must pay a $300 deductible and 20% co-insurance. Retiree also must pay $1,100 out of pocket before 100% coverage is provided

NCNB Retiree's age and years at the company must total at least 75 before he or she is eligible for benefits

SOUTHERN CALIFORNIA EDISON Urges retirees to seek health care from a list of company-selected doctors who have agreed to reduced prices

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BUSINESS SCHOOLS

YESSIREE, REAL LIVE MBAs! GET 'EM WHILE THEY LAST

As recruiting drops, B-schools must hawk even their best and brightest

At Harvard business school, recruitment advertising in the student weekly is plummeting. The University of California at Los Angeles' B-school is counseling anxiety-ridden job candidates on how to convert fear into enthusiasm during interviews, lest recruiters sense that the students are desperate. And at the University of North Carolina, jittery students plan a phone-athon in January to hit up alumni for internships and jobs. "If nothing else, the alumni will appreciate that we're not calling them for money," quips Peter Topping, director of graduate placement.

Welcome to Reality 101: Job-Hunting in a Recession. For tens of thousands of MBA students, the new year may shape up as one of the toughest in memory. Dozens of mainstream MBA recruiters are canceling interview schedules, even at the most elite business schools. Many of the companies that still plan to show up on campus expect to hire far fewer students this year (table).

Bain & Co., the management consulting firm that usually hires more than 50 MBAs a year, has suspended its entire recruiting program. First National Bank of Chicago, which hired 55 MBAs this year, expects to hire 22 in 1991. "The anxiety on campus is palpable," says Robert Chrismer, First Chicago's manager of college recruiting. "Students aren't interviewing as well because they are so tense." What's more, grads are likely to make far less than the $59,705 average starting salary and bonus raked in by the class of 1990.

PACKED HALL. Throughout the past decade, MBAs were on easy street. Record numbers of them found jobs waiting, especially in the booming financial services industry. But the days of corporate recruiters who hired by the boatload may be coming to a close. "In the future, recruiting will be a onesy, twosy kind of thing," says Donald Jacobs, dean of Northwestern University's Kellogg business school. The deans can only hope that more foreign, midsize, and entrepreneurial companies will replace many of the bigger corporate dropouts.

For the short term, these chang mean companies such as Procter & Ga ble Co. and Kraft Inc. are getting great deal more attention than are tro bled financial services firms. Some 1 Harvard students recently packed a r cruiting briefing by NBC Inc., only hear it was hiring merely two MBA "You couldn't get in the door," says M chael J. Russell, editor of Harvard bu ness school's *Harbus News*. A year ag he adds, only 30 students might ha shown up.

STREET BLUES. Companies now can ski the cream, snagging the top studen who in years past would have gone higher-paying jobs on Wall Street. the University of Pennsylvania's Wha ton School, Eli Lilly & Co. recently inv ed 21 of the 26 students it interviewed return for second interviews. In pa years, the company would typically c back only a third of the Wharton st dents it saw.

Few schools seem immune. About companies, from Alex. Brown & So Inc. to Quaker Oats Co., have cancel interview schedules at the University Virginia's Darden School. Many othe including such big-name companies Black & Decker, Carnation, Frito-La Mobil, and Warner Lambert, have c the number of interviews at Dard Some 10% of the companies that recru at the University of Rochester's bu ness school—including Campbell So Co. and J. P. Morgan & Co.—have c celed their trips. "It's very frighteni even for us," says Dina A. Lindqui director of placement. "There is a re mysterious feeling in the air."

With fewer companies visiting school campuses, some schools are ma ing greater efforts to bring students the corporations. Top-ranked Kellogg stepping up workshops on off-camp job-hunting skills and is soliciting jo by correspondence for the first tim Dartmouth College's Amos Tuck sch is sending more students off to job fai "This isn't the kind of year that you c afford to sit back and wait for things happen," observes Roger F. Muller, rector of career planning.

It's not all doo and gloom. Wharto lost 30 compani this year from its campus recruiti schedule but pick up 29 new ones. St the so-called pa port to the good l is likely to get its cipients through fewer doors in 19

By John A. Byr in New York

THE HUNT FOR MBAs

	MBA hires in 1990	Expected MBA hires in 1991
AMERICAN AIRLINES	84	42
BAIN	50	0
FIRST CHICAGO	55	22
FORD	150	115
TRAMMELL CROW	12	6
UNISYS	15	7

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In Business This Week

EDITED BY HARRIS COLLINGWOOD

AN AFTERLIFE AT LAVENTHOL?

▸ They jokingly call it the Phoenix project. Although Laventhol & Horwath has gone up in flames, the accounting firm's systems integration group is laying plans to emerge intact from the ashes. The profitable unit, which designs and builds computer networks for customers such as the Chicago Transit Authority, is negotiating a buyout with at least three potential bidders: French software house CGI Informatique, a midsize accounting firm, and a private investor. The 60-person systems group, which has annual revenues of roughly $15 million, also has talked to several banks about arranging financing to go private on its own.

The winning bidder should be named early in December. Steven Ems, an L&H systems integration manager, says the unnamed private investor has the inside track.

HOLIDAY GLOOM FOR MACY'S . . .

▸ Macy's fiscal year is getting off to a rocky start. Sources inside and outside the company say R. H. Macy will report a $66 million loss for the first quarter of 1991, which ended Oct. 31. That's twice the loss posted in the same quarter last year. A Macy official said the news is "basically on target with what [the company] was expecting."

Industry insiders are nervous that earnings for the Christmas quarter will be even grimmer. They blame the slumping economy in the Northeast, where many Macy stores are located.

. . . AND A LUMP OF COAL FOR CHILD WORLD

▸ Child World, it appears, will have a blue Christmas. On Nov. 22, Trefoil Capital Investors announced it was pulling out of a $175.5 million deal to buy the distressed toy store chain. Sources close to the negotiations indicate that Trefoil, a "white knight" investment fund organized by Roy Disney's Shamrock Holdings, failed to get loans to cover Child World's working capital needs. Neither Trefoil nor Child World's majority owner, CNC Holding, is talking.

Child World, though, may yet be up for grabs. Its stock is trading at around 5, which is just 25% of book value. And even if Child World fails to produce a profit this year, one investor estimates, its stores should generate $1.50 a share in cash flow.

SCE'S MERGER HITS ANOTHER SNAG

▸ Retiring SCE Chairman Howard Allen hoped for a farewell present: completion of the $2.6 billion merger between SCE's Southern California Edison unit and San Diego Gas & Electric. The merger would create the nation's largest electric utility. But 24 months after San Diego accepted Allen's hostile bid, the deal is still hanging fire.

The latest delay came on Nov. 27, when an administrative law judge at the Federal Energy Regulatory Commission recommended that federal regulators disapprove the merger. Judge George Lewnes found that combining the businesses could drive up consumer prices. The utilities say they'll press for FERC approval.

MANHATTAN'S MOST HEAVENLY PEEP SHOW

They say that in New York, everything is for sale. Including, thanks to Robert Kousoulos, close-up views of the heavens. Kousoulos is a truck driver-cum-astronomer who on cloudless nights sets up a telescope in the city's Chelsea section, selling views of the celestial action for $1 a peek. On a recent evening, the goods on offer were Saturn, the moon's Sea of Tranquility, and, as a sort of late-night special, Jupiter, which wasn't visib until 11:30 or so.

Kousoulos says he learned about the stars "by going in Barnes & Noble and ringing up $180 in astronomy books. didn't want to spend $80,000 and six years getting a PhD." B if he doesn't have a degree, how does he explain those loft sounding initials, S. E., S. E. A., that follow his name on h business card? "Simple," he says. "It stands for Self-Educate Self-Employed Astronomer."

CHEVRON'S COASTAL DISTURBANCES

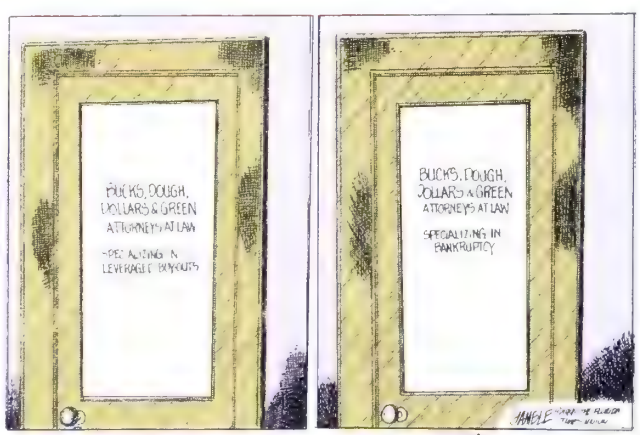
▸ Chevron will begin tapping its massive Point Arguello oil field off the Santa Barbara (Calif.) coast, but the political storm over the reserve is likely to continue. On Nov. 27, the oil company said it would be pumping 20,000 barrels of crude a day within six months, transporting it by pipeline to refineries in Northern and Central Californi

Chevron had hoped to pr duce up to 100,000 barrels day and ship the oil by tank to Los Angeles, but local of cials rejected those plans mid-November. The compa has appealed to the Californ Coastal Commission, which expected to hear the case January. But the commissi has favored pipelines ov tankers in the past, so Che ron's political battles may n end anytime soon.

BUSINESSLAND TRIES A NEW TACK

▸ Troubled computer reta chain Businessland is cou ing on improved distributio software, and a new manag ment team to get it back the black. On Nov. 27, Chi Executive David Norma mapped out a reorganizati plan that calls for the retail to develop programs for customers. The company al unveiled a revamped cor rate structure, creating di sions for products, servi and distribution.

The $1.4 billion retailer is prime victim of the slump PC sales. It lost $23 million f the year ended June 30 a $19.9 million more in the Se tember quarter.



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EDITED BY STEPHEN H. WILDSTROM

THE WHITE HOUSE TAKES A JAWBONE TO THE CREDIT CRUNCH

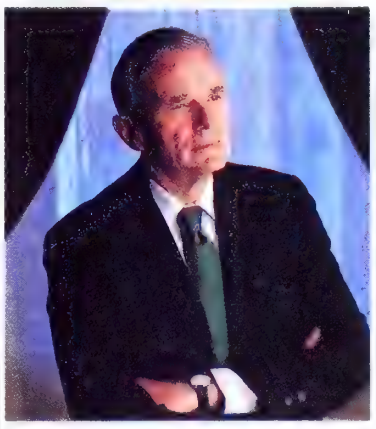
The White House may not be able to do much to head off a recession, but it isn't about to let the economy slide without a show of action. Earlier attempts to blame the owdown on Saddam Hussein and tax-and-spend Democrats ll flat. But now President Bush's aides have found new, and rhaps more credible, villains: tightfisted bankers and their rtners in caution, bank regulators.

In the past couple of weeks, what had been quiet Administation grumbling about a credit crunch has turned into a iblic chorus of complaint. Bankers and industrialists, including the chief executives of Ford, BellSouth, ars, and Amoco, were called to the White ouse to voice their grievances. Treasury cretary Nicholas F. Brady went public ith some advice: Bankers should "keep nding to your good customers." And zealis regulators should "apply some balance."

Bankers insist they are not to blame. They gue that weak loan demand, not lenders' inginess, has slowed lending to a trickle. iffer requirements, such as higher collatal, are "a natural market reaction to the cesses of the past," says First Wachovia airman John G. Medlin Jr., who attended Nov. 15 White House gripe session.

SCAPEGOAT.' Regulators, too, have tightled up in response to the savings-and-loan andal and huge bank write-offs of real tate loans. "We don't want to fall into the me trap that the S&L [regulators] fell into," says Andrew C. ove, vice-chairman of the Federal Deposit Insurance Corp. ut the banking cops deny that they've urged lenders to cut f creditworthy borrowers. Bankers, says Hove, "use regulars as a scapegoat" when they turn down a borrower.

Some regulators now think the caution has been overdone. ederal Reserve Board Chairman Alan Greenspan first said st summer that banks had carried prudence too far. Since en, Fed analysis shows standards have been raised further, with the crunch spreading from real estate developers and small businesses to larger corporations.



BRADY: PUSHING BANKERS TO LEND AND CHIDING BANK REGULATORS

Trouble is, neither the White House nor Greenspan knows how to revive lending. For months, the Fed has mulled over the idea of reducing the amount of reserves that banks must deposit with it, even though the impact of such a move would be mainly psychological. The Administration would like the Fed to ease more aggressively. But markets are resisting the Fed's efforts to nudge down short-term interest rates.

FIRING LINE. Bush aides are also leery of leaning too hard on either bankers or regulators at a time when the hearings into the Keating Five affair are keeping memories of the S&L scandal vivid. In such an atmosphere, it doesn't take much to stir up charges of political meddling. FDIC Chairman William L. Seidman, who has already survived an attempt by White House Chief of Staff John H. Sununu to fire him, says: "The White House responds to screams from the citizenry, particularly of citizens involved in putting the President in place."

For the long term, the Administration hopes to shore up the shaky U. S. financial system by reforming deposit insurance and allowing banks to get into businesses such as insurance and securities. With broader powers, Brady maintains, banks would be positioned to recapture their traditional corporate customers and would be less tempted to plunge into boom-and-bust fads such as commercial real estate lending. But such legislation has been stalled in Congress for years.

Furthermore, long-term solutions won't help get the economy through its winter of discontent. For now, the Administration's only weapon may be the jawbone. "Power is nine-tenths persuasion," says a hopeful White House aide. Besides, he admits, "there's not much else we can do."

By Catherine Yang and Mike McNamee

APITAL WRAPUP

THE GULF

President Bush may have built an international consensus for use of orce in the Persian Gulf, but his suport on the home front remains shaky. Senate Armed Services Committee Chairman Sam Nunn (D-Ga.) pointedly cautioned Bush not to rush into action. Denied top Administration officials as witnesses, Nunn called two former chairmen of the Joint Chiefs of Staff to ay that sanctions should be given ime—perhaps as much as a year—to work. Meanwhile, Republicans, especially on the right, are far from unanimous in support of Bush. Senior Republicans are worried about plans by Representatives Robert K. Dornan (R-Calif.) and Robert S. Walker (R-Pa.) to push for a resolution in January criticizing the Administration's gulf policy.

SPACE

"Mission to Planet Earth" is what NASA calls its grand plan to end its string of embarrassing failures. But the project, a plan to use orbiting platforms for intensive study of climatic change and other earthly phenomena, may get a rough going-over at the Office of Management & Budget. Administration bean-counters will likely try to slash the fiscal 1992 budget for what one official dismisses as a "$34 billion thermometer."

TRADE

House Democrats are gearing up for a fight over a new multilateral trade pact. Majority Leader Richard A. Gephardt (D-Mo.) warns Trade Representative Carla A. Hills not to expect speedy approval of a deal being hammered out in Brussels. Gephardt says the talks haven't focused enough on foreign practices such as dumping. And he's afraid an agreement would require the U. S. to give up its powers to retaliate against countries that close their markets to American goods. Congress has agreed to submit any new trade agreement to a single yes-or-no vote, without amendments.

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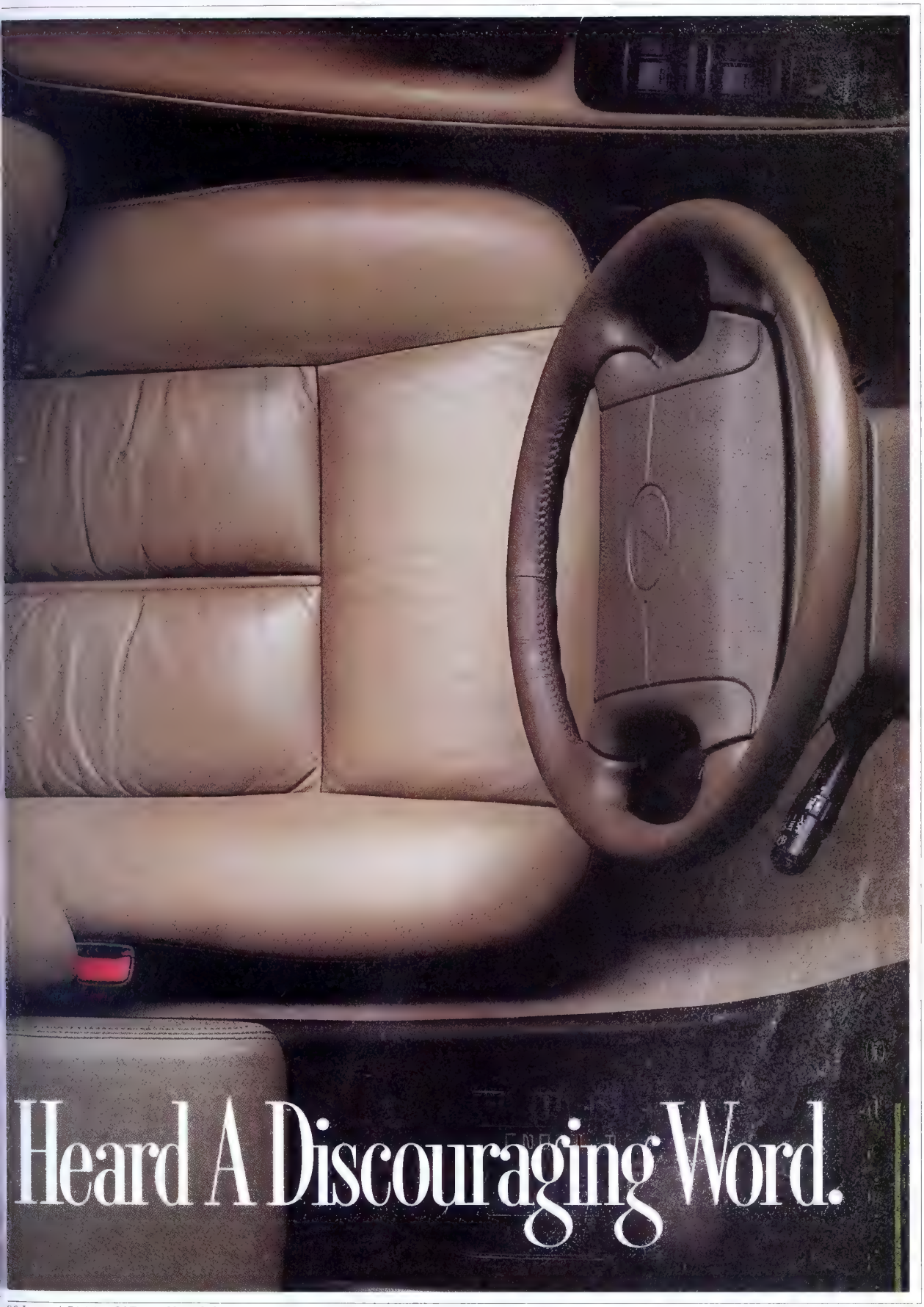

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*November 1989 luxury-car registrations. **J.D. Power and Associates 1990 Initial Quality Survey.SM Based on owner-reported problems the first 90 days of ownership.

BROTHER, WOULD YOU LEND MOSCOW A DIME?

With bad debt piling up, Western banks are holding back—and Gorbachev is scrambling for cash

From the commodity pits of Chicago to the bank vaults of Frankfurt, Soviet traders are running into a new kind of Iron Curtain. Western bankers who used to fight for the Soviet Union's business are holding back on financing deals. As the Soviet economy approaches collapse, defaults on payments to Western suppliers now total $2 billion.

Today, many Western bankers will finance even routine exports only with letters of credit or government guarantees. For unsecured deals, some trade-finance companies are charging interest rates of more than 11.5%, or 2.5 points over market rates. One international banking analyst has dropped Moscow's once-pristine credit standing down to the level of bankrupt Bulgaria. Meanwhile, Western European banks are quietly building up their loss reserves against their Soviet debt exposure, which last June ran about $40 billion (chart). "We're cautious not to repeat the situation we had with Latin American debt," says Walter Seipp, chairman of Germany's Commerzbank.

U.S. CORN BOUND FOR MOSCOW: NO CHEAP CREDITS

The downgrading of the Soviet credit rating couldn't come at a worse time. After nearly six years of failed economic reforms, President Mikhail Gorbachev needs access to Western loans more than ever. A credit crunch could undermine efforts to buy badly needed food on world markets and hasten the country's breakup.

With his economy tanking and Western bankers closing their doors, Gorbachev appears willing to make unprecedented political concessions in exchange for foreign government credits. On Nov. 28, the Soviets won a $4 billion loan from Saudi Arabia after Moscow flip-flopped and backed a U.N. resolution authorizing the use of force if Iraq refuses to leave Kuwait.

German Chancellor Helmut Kohl, who benefited politically when Gorbachev supported the reunification of Germany, now is offering new credit guarantees for Soviet trade. Bonn also has leaned heavily on German banks to ease up on credit for Moscow. "There's been a lot of arm-twisting applied to German banks to extend credits to Moscow," says Otto Graf Lambsdorff, chairman of the Free Democratic Party in Kohl's coalition government.

During a recent swing through European capitals, Gorbachev also won promises of $15 billion in financial aid from Western leaders. He could get an additional $2 billion in government-backed loans in mid-December, when European leaders gather in Rome for a summit.

NO LETUP. The Bush Administration is far less inclined to go out of its way for Gorbachev. Even though Bush has paid lip service to helping the Soviets, he is holding back on cheap credits from the U.S. Commodity Credit Corp. for purchases of American grain. To approve them, he would first have to waive the 1974 Jackson-Vanik Amendment, which denies the Soviets most-favored-nation status, something he vowed he won't do until the Soviets pass a free emigration law. Bush's intransigence miffed Oleg A. Klimov, chairman of the Soviet grain-buying agency Exportkhleb, who vowed on a recent U.S. trip that the Soviets would refuse to buy American grain without government credits.

Even when the Soviets win Western
overnment credits, they are forced to
nk the cash into servicing existing
ebts rather than using it to purchase
eeded foreign capital goods to modern-
e their industry. At the same time,
ey face staggering new bills from a
ige import binge. Their foreign pur-
ases of consumer goods, food, and ma-
inery are expected to reach $51 billion
is year, up from $37 billion in 1989,
ys a German analyst. To pay the tab,
e Soviets are scrambling to draw down
sh reserves kept in Western banks. As
June, Vneschekonombank, the Soviet
ade bank, had exhausted $6 billion of
e nearly $15 billion it had in cash sav-
gs in the West last December. Adding
the cash squeeze, Soviet oil exports
xt year could fall by as much as 50%,
1.22 million barrels a day, costing the
viets billions in hard currency.

Gorbachev has resorted to a series of
usual measures to help service his
oss foreign debt, now estimated at $60
llion. To sop up hard currency, all Sovi-
exporters will be required to sell 40%
their export earnings to the govern-
ent in 1991. The money would be put
o a joint fund administered by repub-
s and the central government and
ed to pay foreign creditors. On Nov.
, Gorbachev also announced an emer-
ncy program to slash government ex-
nditures next year. His program
ould halve lending to foreign countries
d cut foreign aid by 75%.

JTINY. A real wild card is the growing
bellion of some of the country's 15
publics. Both Russia and the Ukraine
e already talking to foreign banks
out borrowing on their own. By its
n estimates, Russia accounts for 70%
the Soviet Union's hard-currency rev-
ues from its oil, timber, and other
mmodity exports.

The Russians would like to pledge
ose resources against foreign loans.
it that is the source of a major con-
ontation between Gorbachev and Rus-
n Republic President Boris N. Yeltsin.
ur position is clear: All [hard] curren-
earnings on the Russian territory
ist be distributed by the Russian gov-
nment," says Andrei V. Zverev, depu-
finance minister of the Russian re-
blic. Still, it's unlikely that nervous
estern bankers will warm to the idea
lending funds to the republics. "We
n't deal with individual republics yet,"
ys Alexander von Bethmann, a first
e-president at Deutsche Bank. "We
nply don't know them." Meanwhile,
rbachev has no other choice but to
pe that his stellar reputation as a
rld statesman is collateral enough for
estern money.

*By Igor Reichlin in Bonn and Rose Bra-
in Moscow, with David Greising in Chi-
go and Amy Borrus in Washington*

SWEDEN

FORTRESS WALLENBERG IS SHOWING SOME CRACKS

If Sweden joins the EC, the family could lose its empire

These are tough times for Sweden's leading industrialist, Peter Wallenberg. His Saab-Scania, a leading producer of cars, heavy trucks, and aerospace gear, continues to lose money in cars. Now, the Swedish government is balking at a plan to buy 110 of Saab's new Gripen fighter planes, threatening a project that's already two years behind schedule and $1.5 billion over budget.

But Wallenberg's troubles with Saab may be only the tip of the iceberg for the 64-year-old patriarch, whose family's industrial empire accounts for a third of Sweden's $165 billion economy. Besides Saab, his holdings include major stakes in communications giant L. M. Ericsson, appliance maker Electrolux, and electrical giant ABB. Not only is the Swedish economy in terrible shape but the government of Prime Minister Ingvar Carlsson now plans to join the European Community. That move will threaten Wallenberg's grip on his portfolio of Swedish companies.

PETER WALLENBERG: PROTECTED BY CURBS ON FOREIGN OWNERSHIP OF SWEDISH COMPANIES

NO WAY OUT. Until now, restrictions on foreign ownership have protected the Wallenbergs. But EC rules would force the government to dump those barriers, perhaps as soon as next April. "I cannot imagine that the EC will let us off the hook on that one," says Eric Belfrage, a key financial adviser to the Wallenbergs. In addition, stock shares with special voting privileges that allow the Wallenbergs to control companies with a $55 billion market value with only $5 billion in equity may eventually be eliminated.

Family advisers say Wallenberg plans to fight hard to defend his empire. To raise cash, they say he's mulling the sale of his 15% stake in drugmaker Astra. He might also sell his interest in an investment group that holds the largest private stake in Scandinavian Airlines System. With Swedish stock prices off 40%, or $83 billion, since July, analysts think it's just a matter of time before foreign raiders appear.

But in a recent attempt to ward off a Swedish raider, Wallenberg appears to have stumbled badly. Last summer, he paid $700 million in cash, including a $220 million premium over market value, for a 22% interest that Swedish real estate magnate Sven-Olof Johansson had acquired in Saab-Scania. Wallenberg, who already owned 36% of Saab, had planned to resell the stake to friendly buyers. But because of Saab's problems, he's now stuck with shares worth a third of what he paid for them.

Wallenberg prefers to have his companies take care of their own problems. But the new climate in Europe may force him to look outside Sweden for some much-needed financing clout. Last year, Saab-Scania sold a half interest in its car business to General Motors Corp. Even Ericsson, a profitable $8 billion company, may need a foreign partner to thrive in the toughening international telecommunications market. Whatever course Wallenberg chooses, he is in for some rough sledding.

By Jonathan Kapstein in Brussels

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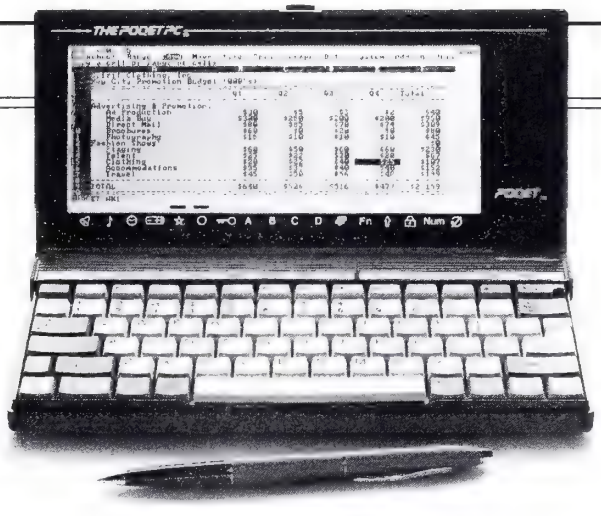

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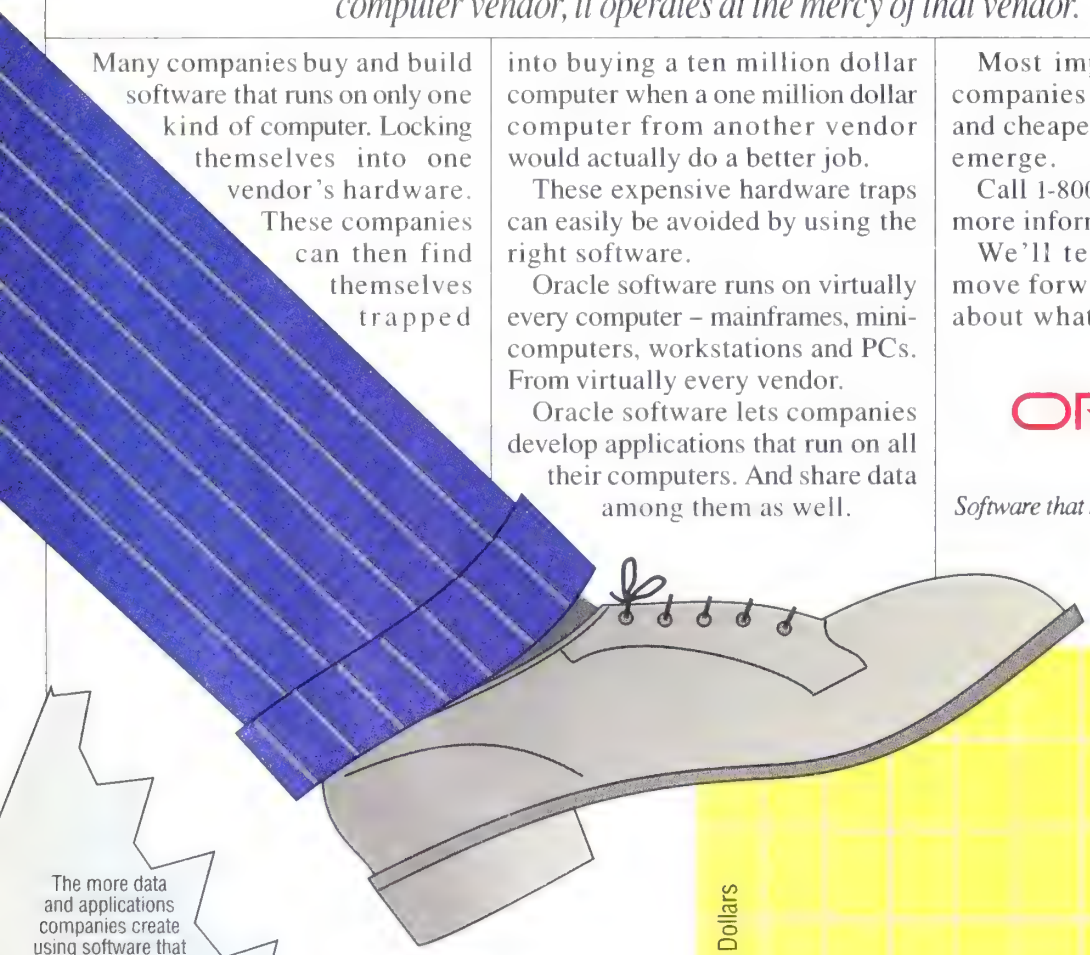

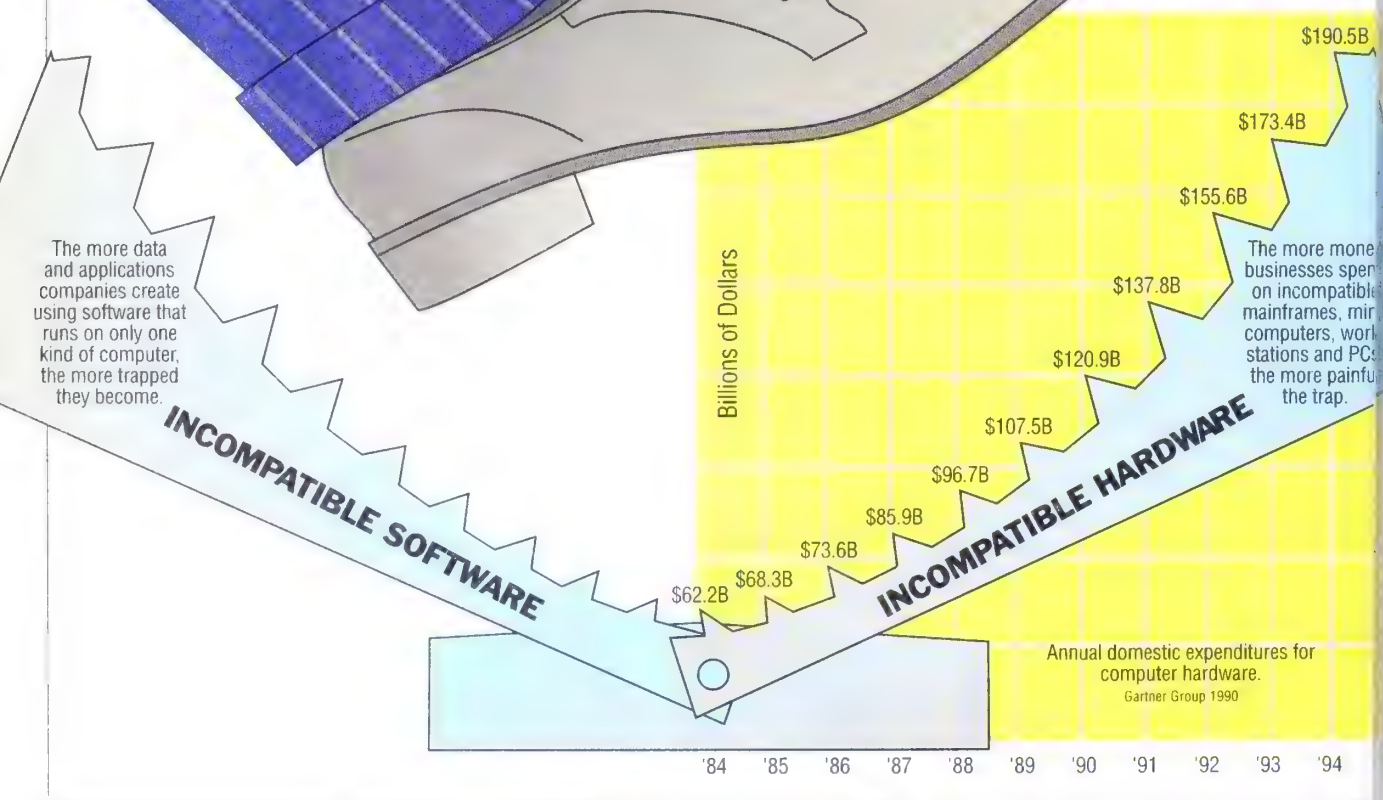

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EDITED BY JOHN PEARSON

WHAT JAPAN'S 'CHECKBOOK DIPLOMACY' ISN'T BUYING

Japanese Prime Minister Toshiki Kaifu has often boasted of his "special relationship" with George Bush. But now, the bond is being severely strained by Kaifu's inability to in support at home for an active Japanese role in the Persian ulf. This paralysis is part of Tokyo's broader failure to create global political role for Japan to match its economic might. In early November, public opposition derailed legislation, :oposed by Kaifu under intense pressure from Washington, send Japanese troops to serve in noncom- at tasks such as communications and medi- l aid, bearing only light arms. Now, even aifu's new watered-down scheme to send vilian volunteers to provide medical and lo- istical support is bogged down before it aches Parliament. It's doubtful that more ian a handful of Japanese will be dispatched the gulf by spring.

ODY BAGS.' Kaifu's waffling has led to "a ery distinct cooling" in U.S.-Japanese rela- ons, says a senior State Dept. official, de- ite Japan's $4 billion financial support for ie gulf effort. As the risk of war rises, U.S. ublic opinion is likely to call for more than st "checkbook diplomacy" by Japan, which epends heavily on gulf oil. Tensions could calate between Tokyo and Washington if iere is an outbreak of fighting following the .N.'s expected approval of force to expel aq from Kuwait. "If the body bags start oming back," says Alan Romberg at the ouncil on Foreign Relations, "people will say: 'Who is sharing ie pain?' " Tokyo's dovish stance on the gulf, contrasted with s aggressive corporate takeover drive in the U.S., could igger an American political backlash.

Kaifu's mismanagement of the gulf issue has undermined s leadership at home. In September, polls showed the queaky-clean 59-year-old riding a crest of extraordinary pub- support. Now, Kaifu is clinging to power only because he faces no strong rivals—such as former Foreign Minister Shintaro Abe, who is seriously ill. But for Kaifu or any other Japanese leader, the key problem is Japan's identity crisis: how to wield global political power in the post-cold-war era. One of Tokyo's goals is to win a permanent seat on the U.N. Security Council. But how can the Japanese aspire to such a role, asks Romberg, "if they can't play a role in security?"

No one is more disappointed in Kaifu's performance than the Bush Administration. Despite serious economic strains, Washington has tried to build close ties with Tokyo in order to pursue common long-term interests. "Those people who argued for years that we had to tread lightly because of our 'special relationship' are finding out that there's no relationship," says Japan critic Clyde V. Prestowitz Jr., president of the Economic Strategy Institute.

SAUDIS AT PRAYER: JAPANESE WON'T BE SEEN ANYTIME SOON

In Asia, despite memories of past Japanese aggression, countries such as Indonesia and Thailand don't object to Japan's sending noncombat forces to the gulf. The main opposition to such a Japanese role is coming from the Koreans and Chinese, who have borne the brunt of Japanese oppression. China's leaders also fear that their ambition to be Asia's dominant power will be thwarted if Japan develops political as well as economic clout.

But Japan's political rise is not likely while its leaders duck such challenges as the gulf crisis. In the end, Tokyo observers say, Kaifu's gulf initiative is likely to be diluted to little more than civilian support for U.N.-sponsored peacekeeping activities once a settlement is reached. "That's not useful for the ongoing crisis," says Hiroyuki Kishino of Tokyo's International Institute for Global Peace. As the number of U.S. troops in the gulf rises to 400,000, Americans couldn't agree more.

By Robert Neff in Tokyo, with Joyce Barnathan in New York and Amy Borrus in Washington

LOBAL WRAPUP

ITALY

Italy is stubbornly bucking Europe's privatization trend. After a two-year battle, Gabriele Cagliari, president of ENI, the state-owned oil company, has wrested control of Enimont, the $13 billion chemicals group, from partner Raul Gardini, the agribusiness tycoon. The move underscores Italy's reluctance to sell off its massive state holdings—Europe's largest—in industry, banking, and telecommunications. 'Our country is the only one in Europe which has a lukewarm attitude to the virtues of the free market," says Treasury Minister Guido Carli.

Enimont had been hailed for bringing private-sector management to the public sector, but the partnership between ENI's chemical businesses and Gardini's Montedison quickly deteriorated. Now, Cagliari faces the job of making Enimont competitive. But if he tries to slash the group's 48,000 employees, he may face an old problem: opposition from Italy's politicians.

BRAZIL

While Iraq's push to build nuclear weapons is worrying its neighbors and Washington, Brazil and Argentina are ending concerns about their nuclear programs by putting them under inspection by the International Atomic Energy Agency. The joint decision to do so, just ahead of visits by President Bush to Brasília and Buenos Aires, ends years of refusal by both countries to accept international oversight of their nuclear fuel research and related activities.

The move by Brazilian President Fernando Collor and Argentine President Carlos Menem helps distance their countries from Iraq, which formerly had links to rocket programs of both Brazil and Argentina. The joint decision parallels efforts to integrate the two countries' economies. And it should help Brazil win a relaxation of U.S. curbs on high-tech exports, such as a supercomputer that aircraft maker Embraer wants to buy from IBM.

THESE BULLS AREN'T PULLING IN THEIR HORNS

A few economists are betting that Fed easing and consumer spending will keep the economy moving

They're not exactly raging bulls. And with every passing day, their ranks are thinning. But in the face of persistently bad news about the economy, a few stalwart economists are keeping the faith, confident that the widely heralded recession will be averted. The numbers for October and November aren't shaping up too well, and the optimists concede that the fourth quarter will probably be negative. But they continue to believe that their relatively cheery forecasts will be borne out by a rallying economy in early 1991. "I think this is a bullet we're going to dodge," says Gail D. Fosler, chief economist of the Conference Board in New York. "We're seeing industry cut back in anticipation of a cut in demand. The question is whether we'll get that cut in demand."

Fosler and others are figuring that any retreat by consumers will be short-lived and that business will accordingly step up spending and investing at the turn of the year. Even now, they say, there are signs that managers are being unduly cautious about estimating demand and that some may have overreacted in slowing production schedules and laying off workers. Auto sales rebounded to a 7.1 million-unit annual rate in mid-November, defying widespread expectations of weak demand. Mail-order clothing company Lands' End Inc. and Apple Computer Inc. recently found that demand for some of their products is outstripping supply. And machine-tool orders jumped 31% in October. Are these signs of recession?

Hardly, say the diehards. Those who are looking for better times predicate their lonesome views on one primary assumption and several secondary ones. Above all, the optimists believe, the Federal Reserve Board is going to ease more aggressively, and that will grease the wheels of the economy in coming months. Then, too, the optimists foresee economic assistance from a number of other quarters: Foreign purchases of U. S. goods should stay strong, housing should perk up, and oil prices should settle down early next year, to $20 to $25 per barrel, down from the current $33 per barrel. Like all other economists, of course, today's bulls are prepared t scrap their forecasts in the event of wa in the Middle East.

Only a couple of years ago, these bull would have sounded like bears. In th current environment, however, eve gains in real gross national product 1% to 2% seem healthy. As of mid-N vember, the Blue Chip Consensus, a su vey of 55 economists conducted by eco omist Robert J. Eggert in Sedona, Ariz was projecting real growth in 1991 only 0.5%, after a 1% gain in 1990. Full 82% of the group was expecting a mil recession of two to three quarter

PRUDENTIAL-BACHE'S YARDENI, THE CONFERENCE BOARD'S FOSLER, UNIVERSITY OF MICHIGAN'S HYMANS: THESE OPTIMISTS SAY INDUSTRY HAS OVERREACTED BY CUTTING PRODUCTION AND LAYING OFF WORKERS, AND THEY BELIEVE HOUSING AND EXPORTS WILL PICK UP IN THE NEW YEAR

The pessimists, says Robert J. Ge etski, chief economist of Chicago Cor a financial services firm, are extrapol ing from two months' bad numbers a "just taking a guess" that the bad ne will continue for some months. Gen ski's own analysis of the Fed's stan tells him that there is enough mon available in the economy to susta healthy consumption. Yet consumer co fidence is low, and retail sales have be weak. The current pullback "may be o

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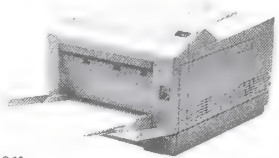

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of those odd times when the economy moves independently of monetary policy," observes Genetski, but because it's unusual, he doesn't believe that divergence will continue. He's looking for a modest 0.5% gain in GNP in the current quarter, followed by gains at about a 3% annual rate in 1991.

Bucking the recession tide isn't easy, especially if you work on Wall Street. Edward E. Yardeni should know. As chief economist at Prudential-Bache Securities Inc., he is daily surrounded by the gloom of the Street. But he is unfazed. "If we didn't have 750 basis points between where the federal funds rate is now and zero, I'd be one of the pessimists, too," says Yardeni. "I'm not convinced the economy is on the verge of falling apart." Lower rates should revive consumer confidence, and after sinking 2% in the fourth quarter, the economy should start growing by about 2% in the first quarter of next year, says Yardeni. He's expecting the federal funds rate to be as low as 6.5% by March, down from its current 7.5%. Mortgage rates will start falling, and that should revive housing demand.

SHORT TIME-OUT? Saul H. Hymans, director of the University of Michigan's Research Seminar on Quantitative Economics, also expects lower rates to boost residential construction. Housing starts should bottom out at a 1.1 million annual rate in the fourth quarter, predicts Hymans, and start rising gently, to nearly 1.2 million, in the second quarter. Strong overseas demand for U. S. exports should further prop up the economy. The Michigan economist is predicting that the dollar, after dropping 15% on a trade-weighted basis thus far in 1990, will continue to depreciate in 1991, thanks to differences in monetary policies around the globe. In the first quarter alone, says Hymans, much stronger exports and slightly weaker imports should add about 1% to GNP at an annual rate.

Add it all up, say the bulls, and it may be that the economy is merely stopping to catch its breath, not falling over the precipice. Gloom in the Northeast, now the "basket case of the country," says Hymans, isn't that widely shared. And the optimists stress that fundamentals, not sentiment, usually win the day in the economy. "What we've witnessed is some kind of seizure," says the Conference Board's Fosler. She figures that as long as retailers continue to discount prices, consumers try to maintain lifestyles, and incomes aren't badly hit by precautionary layoffs, overall demand may well revive. Says Fosler: "I've always found betting against the willfulness of the American consumer to be a bad bet."

By Karen Pennar in New York

CAN CABOT GO HOME AGAIN?

It zeros in on its original nuts-and-bolts business: Carbon black

CARBON BLACK: AN OIL BY-PRODUCT USED TO STRENGTHEN RUBBER

Back in 1987, Cabot Corp. Chairman Samuel W. Bodman faced a pack of troubles. GAF Corp.'s acquisitive chairman, Samuel J. Heyman, having bought a 4.9% stake, was circling the chemical maker long run by Boston's upper-crust Cabot family. Heyman had good reason: Despite its pedigree, Cabot was a grab bag of unrelated companies whose profits were anything but top-drawer. Bodman bought out Heyman, then started selling off assets much as a raider might have.

Now, Bodman is rebuilding the company around its old-line core—a sooty substance called carbon black. The stuff has been around for ages, and Cabot made its name producing the powdery reinforcing agent, derived from oil, that is used to make tires, inks, and other everyday products. Today, Cabot is at the top of the carbon-black heap, with worldwide sales of $650 million.

Still, the carbon-black business is hardly a growth vehicle, at least in the U. S. Anemic auto sales and fierce price competition are giving Cabot and its competitors in the business a good shellacking. Worse, war jitters in the Persian Gulf have driven up oil prices 50% over last year's— increase produce can't pass along. " an industry, we solutely are bei squeezed to deat says Oscar T. Sc IV, president of ri J. M. Huber Cor engineered carb division.

Bodman, a for venture capitalist cruited to rejuven Cabot in 1986, i so glum. He's vinced that Ca can build upon leading position carbon black, e though the com ny's North Ameri operation—accou ing for 36% of segment's total barely breaking even.

SLIMMING DOWN. So where's the grow Overseas. Cabot's European operati are turning out plenty of cash. With competition, Cabot's plants are runn full tilt, and the company has been a to pass along more in the way of p increases. That's why Bodman is spe ing $50 million to build three new bon-black plants—in Shanghai, Jaka and Kashima, Japan. It's cheaper manufacture carbon black overseas sell it in bulk directly to foreign cust ers than to package the powder transport abroad.

At home and abroad, Bodman is investing heavily in Cabot's other cialty chemicals, such as fumed silic bonding and thickening agent, and m rials that enhance industrial plas Since 1986, he has tripled annual ca spending, to $122 million overall.

Bodman isn't finished pruning Cab portfolio of chemical and energy b nesses, though. Last year, he began ing off energy assets because their earnings performance and differ standard of valuation—based on serves and cash flow rather than p its—were dampening Cabot's earn

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THE NEXT ONE MAY NOT BE IN CALIFORNIA.

Scientists warn that the probability of a cataclysmic earthquake striking the United States is becoming greater all the time.

They're not just talking about California, either. A major quake might well strike the East Coast and Midwest.

Such an earthquake, measuring, say, 8.0 on the Richter scale, could result in thousands of deaths. With property losses alone reaching $70 billion.

THE ENTIRE COUNTRY WOULD SUFFER.

Consider this.

Were a major earthquake to strike a city like Los Angeles, St. Louis or New York, the entire country would pay the price. And the impact would extend far beyond the deaths, personal injury and property damage in the immediate quake area.

Start with disruption of critical energy and communication lines, food distribution and transportation. Add the problems in the financial markets that would inevitably arise as the insurance industry mobilized the funds to pay massive claims.

Worse yet, the insurance industry, drained of cash, might be unable to raise new capital to meet ongoing obligations and offer new coverages in the future.

As a nation, we can't afford to let this happen. Yet it easily could.

WE NEED TO BE BETTER PREPARED.

Destructive earthquakes will continue to occur throughout the world. The only real uncertainties are when and where.

Minimizing their effects calls for some fresh thinking. That's where The Earthquake Project comes in.

The Earthquake Project is supported by companies that have been working individually and through trade groups for several years to lay the groundwork for legislation to address this problem. Our goal

ederal earthquake
ital for all Americans.

is to protect the integrity of our economy in the event of a major quake.

And to make earthquake insurance available and affordable to every American homeowner and business.

A GOVERNMENT-INDUSTRY PARTNERSHIP APPROACH.

The proposed legislation would create a federal earthquake insurance program based on a government-industry partnership. The program would increase the number of homeowners purchasing insurance, thereby spreading the cost of risk more broadly. As a result, rates would be generally lower than they are today and coverage would be more affordable.

Another feature of the program would be the creation of a federal earthquake reinsurance corporation. Commercial insurance companies could purchase additional reinsurance from this corporation to supplement their existing capacity. This extra layer of protection would come into play in the event insurance industry earthquake losses exceeded some predetermined large figure–say $8 billion.

IT WOULD PROVIDE THE RESOURCES TO REBUILD OUR ECONOMY.

With such a program in place, compensation could be available to every earthquake victim suffering property losses. Moreover, the reinsurance aspect of the plan would assist the insurance industry in performing its role of efficiently allocating the resources needed for rapid recovery and for rebuilding our economy.

As we see it, a federal earthquake insurance program, undertaken with the participation of government, business and American homeowners, is no longer a matter of choice.

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AIG is a founding member of, and participant in, The Earthquake Project. We believe the American public should understand the probable extent of devastation from a major earthquake. And the ways we as a nation can prepare to deal with it.

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BODMAN WHIRLS THROUGH CABOT

MAY 1989	JULY 1989	NOVEMBER 1989	FEBRUARY 1990	APRIL 1990	OCTOBER 1990
Sold off company's Western oil reserves for $50 million, resulting in a $14.5 million gain	Merged natural-gas-transmission unit with American Oil & Gas	Consolidated the company's oil and gas exploration operations into Cabot Oil & Gas	Spun off 18% of Cabot Oil & Gas to the public in a move that raised $140 million for the company	Purchased AO Safety, a manufacturer of various industrial safety products, for $118 million	Announced plan to spin off remaining shares of Cabot Oil Gas to Cabot investors in mid December

DATA: COMPANY REPORTS

and stock price. "Cabot, like a lot of other companies, found out that getting off into somebody else's business isn't as easy as it looks from the outside," says Bodman.

So, in mid-December, Cabot will sell to shareholders its 82%-owned subsidiary, Cabot Oil & Gas Corp., a $129 million energy operation with holdings primarily in the Appalachian region. Already, Bodman's back-to-basics approach has markedly improved Cabot's earnings. Operating profits for the year ended Sept. 30 rose 20%, to $190 million, on $1.7 billion in revenues. And Legg Mason Wood Walker Inc. figures the deal will boost Cabot's earnings per share 30% next year.

That's quite a feat, considering the shape Cabot was in when Bodman arrived. It had spent years milking its carbon-black business to help finance the buying spree that took Cabot into such fields as high-tech ceramics. By 1986, aftertax operating income had fallen to 4.9% of sales, down from 10.4% in 1980. "We slipped, admittedly," says Thomas D. Cabot, a feisty nonagenarian and former chairman.

QUICK STUDY. Having slipped, Cabot was in danger of falling. In 1986, the company's board scouted for a heavy-hitter to set things right. It found one in Bodman. During the 1960s, he was a star assistant professor at Massachusetts Institute of Technology, specializing in chemical production and plant design. "He could have gone as far as he wanted at the university," says his old boss, Raymond F. Baddour.

Instead, he left academe in 1971 to launch Fidelity Management & Research Corp.'s venture-capital fund. While there, he helped steer money into such future successes as Atari and Rolm, and guided the fund to compound annual returns of 50%-plus. In 1980, at the tender age of 41, he became president of FMR Corp., Fidelity's parent.

Not only is Bodman a quick study, he's also a shrewd dealmaker. For instance, Bodman sold Cabot's West Texas gas-pipeline business after realizing the company lacked the cash and expertise to improve it. A controlling interest in the unit went to American Oil & Gas Corp., a well-regarded pipeline operator, for $35 million and a 49% stake in the combined entity. The Cabot chairman has also reshuffled top management at his once-sleepy, hierarchical comp

Bodman hasn't won much appla from investors, though. Cabot's sh are trading at just 28 these days, down from their 1989 high of 45 virtually unchanged from a decade Still, Bodman argues the compan greatly undervalued. Indeed, anal figure the company's stakes in Cabo & Gas and in its AO Safety unit, w makes factory goggles and earplugs gether are worth $22 a share. So Street is ascribing little value to company's chemical operations, w turned out a nifty $100 million in pr profits last year.

A GIMLET EYE. To reassur vestors, Bodman will nee make the U.S. carbon-b segment more profitable. that will mean keeping a gi let eye on costs and ma share. Carbon black is m by shooting a hot mist o particles into a flame. The cess carries hefty fixed c and Cabot's plants must w at 80% of capacity to pro the material affordably. R now, the plants are barely ting that mark. And if b ness drops markedly, Ca margins will vanish. That plains Bodman's vow: "Th carry me out of here o stretcher before I lose ma share." So far, Bodman is standing. Cabot hasn't lost of its 29% market share has cut $10 million in an operating costs.

There's likely to be more kering to come at Cabot. I ers expect Bodman to spin the company's safety-prod unit and sell part or all o gas-importing business to public. But tough as the in try is, carbon black looks one business Bodman hang on to. He sees gold handful of black grit.

By Keith H. Hammond in Waltham, Mass.

Chairman Bodman: 'They'll carry me out of here on a stretcher before I lose market share'

HE TECHNOLOGY REVOLUTION COMES TO

EDUCATION

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A Letter from Robert A. Mosbacher, U.S. Secretary of Commerce

America's hope for the future lies in the education of its children. When today's kindergartners become tomorrow's business leaders, America's international competitiveness will depend on the skills we impart to them during their academic journey.

In the rapidly changing global economy, the greatest resource we can develop is a nation of leaders. The technology revolution continues to shape our lives and change the ways we do things. We need a work force that can adapt to swift changes and leaders who can manage the opportunities offered by technology.

It is only fitting, then, that the nation's businesses take part in the education of our youth by bringing technology out of the laboratory and into classrooms. Across the country, businesses have recognized this role and have established cooperative alliances with local schools. I commend these public-private partnerships, which provide young people with the human and technical resources they need. In fact, the U.S. Department of Commerce has several such initiatives, including the Technology Administration's Technology Heroes program, which showcases winners of the National Medal of Technology as role models for inspiring future engineers and scientists.

As President Bush has said, "Winning in the competitive '90s will take more than investing in products. We must also invest in people. And that means offering every American child an education second to none."

The investment we make today in intellectual capital will continue to pay handsome dividends for generations to come.

THE TECHNOLOGY REVOLUTION COMES TO

EDUCATION

Education in the Information Age

Electronic Schools and American Competitiveness/by James J. Higgins

A New Learning Enterprise/by Lewis J. Perelman

The New Revolution/by James A. Mecklenberger

The Digitization of Schools/by Senator Al Gore, Jr.

Changing the System

Restructuring Through Technology/by Isabel Bruder

The Three R's: Research, Redesign, and Reform/by Charles D. Winslow

Teachers on the Firing Line/by Donna Rhodes

Images of Potential: From Vision to Reality/by Kim Buerry, Bruce Haslan, and Nettie Legters

Education Marketplace

School Hardware: The Four Tops/by Judy Salpeter

Integrated Learning Systems: Revolutionary Epicenter/by Therese Mageau

The Software Role/An Interview with Bill Dinsmore, CEO, The Learning Co.

The Electronic Textbook/by Therese Mageau

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High-Tech Have-Nots (Q.E.D. survey results)

Technology Today

Vo-Tech Goes High-Tech/by Mindy Boyer

Student Illiteracy: First Time Right/by James J. Higgins

Ally Against Adult Illiteracy/by James J. Higgins

Learning About Learning/by Idit Harel

The Future

Evaluating Educational Technology/by Dale Mann

What Business Must Do/by James J. Higgins

EDITORIAL DIRECTOR

James J. Higgins is CEO of Higgins, Inc., a public relations firm in Boston. He has been a teacher, teacher trainer, administrator, textbook author, and an education journalist for the *Philadelphia Inquirer*. He is an aggressive advocate of business/education partnerships, particularly on the educational uses of technology.

BUSINESS WEEK GRANTS

Business Week will donate a portion of the net income from this education section to grants for teachers who demonstrate innovation and excellence in the use of education technology in 1991. For application forms, write to: William H. DeGraff, Teacher Grants, Business Week, 1221 Avenue of the Americas, New York, N.Y. 10020.

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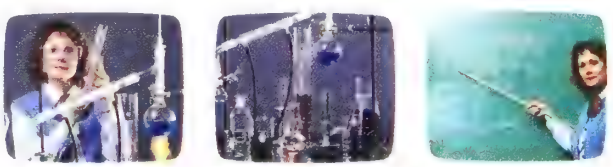

Interactive video allows students in classrooms to be in two-way video and audio contact with leading educators.

We believe it's time to bring the American education system up to date with the world around it. Only then will our children truly be able to shoot for the stars.

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Education in the Information Age

Electronic Schools and American Competitiveness

BY JAMES J. HIGGINS

America's educational performance can be second to none in the next century. This was the overwhelming consensus of President Bush and 50 United States governors at the Education Summit last year. Less than a decade is left to reach this monumental goal. And reach it we must, if American business is to successfully compete in the international economy.

The education-technology revolution ablaze in classrooms across America will help us achieve that goal. This revolution promises to restructure the nation's nearly 15,000 school districts; integrate classroom curriculum electronically; provide immediate (and interactive) information to students and teachers; and, more importantly, equip students with the technological tools and thinking skills that are absolutely essential for productive employment and informed citizenship.

A New Approach

Society's very perception of what a school is and what constitutes education must change. America must distinguish between the objectives of public education and the setting in which those goals historically have been pursued. Teacher-centered, textbook-oriented education was a great invention in its era. It served us extremely well while the world's body of knowledge seemed relatively fixed and the pace of change could be measured by the predictable cadence of the daily newspaper. But that world recedes further and faster into an almost quaint past.

Fortunately, in a number of school districts in this country, teachers and students are already enjoying the benefits of the technology revolution. Teachers are energized by new prospects of professional success and students are motivated by new forms of interaction within their important courses of study. Computers manage routine clerical tasks and enrich courses of study. Telecommunications and satellite systems deliver an array of resources — databases, dramas, documentaries — to teachers, administrators, and students alike. Interactive videodiscs animate the world's great art museums and reveal the wonders of science. Interactive multimedia capabilities bring new power and depth to teacher presentations and allow students to demonstrate their grasp of the world with vigor and clarity, and in formats they'll use in the 21st-century workplace.

Building an Information Age education system is an economic and cultural necessity. The electronic schools revolution is encouraging, but its pace is far too slow and its scope too limited to lift American competitiveness and increase U.S. productivity.

Stamp Out the Status Quo

Education marketers such as IBM and WICAT know first-hand the efficiencies and economies that technology applications bring to educational management and instruction — and the renewed sense of professionalism teachers experience. Hundreds of academic studies testify to the efficacy of technology-mediated learning environments. Indeed, there is near universal agreement that depositing *more* financial resources into the existing public education system, absent fundamental structural

IMAGES THAT MEAN BUSINESS FROM KODAK

reforms, would be profoundly imprudent. After more than three decades of increased investment with uneven or marginal gain, it's time for dramatic, all-encompassing, structural change in the American public school system. The status quo should be replaced and completely rebuilt around Information Age technologies.

Current educational practice prepares students for a hierarchical world where specialization is valued, when a more cooperative approach is called for. Technology used in school classrooms and school management tends to flatten hierarchies. Education technology is engineered to promote creativity and collaboration and sharpen information-management and problem-solving skills. This, in turn, increases student/teacher/administrator productivity.

Classroom teachers are on the firing line of our schools, and, indeed, they're often wrongly cited for the failure of our education system. The truth is otherwise. Most teachers are looking to the future, and impressive numbers in their ranks support technology applications in classroom curriculum and management. The recent poll by The Wirthlin Group for IBM (excerpted in "Computer Report Card") reported that classroom teachers thought increased technology use had a positive impact on education overall, and, more specifically, led to increased student motivation, basic-skills literacy, reduced drop-out rates, and better college preparedness.

The Ripple Effect of Failure

It's nearly impossible to overstate the serious economic impact the failure of our education system has had on the social and economic fabric of America. Either we fix this problem — and meet the challenge of the Education Summit — or we accept second-class citizenship in the international community.

The dollar cost of failure is stupendous. A lifetime menu of compensatory social services, remediation, welfare payments, and incarceration will be required to support those who leave the system without the rudimentary skills required for meaningful employment. The numbers are staggering.

An amazing fish tale from Optical Data's Windows of Science videodisc series captivates young students.

> ***"We cannot truly reform U. S. education, until its failures become a national obsession."***
>
> TERREL H. BELL
> Former U. S. Secretary of Education

Twenty-six percent of our young people drop out before finishing high school. (The drop-out rate for Japan is 4% to 6%.) The system graduates an additional 700,000 students each year who cannot read their diplomas. The costs of compensatory programs from federal, state, and local governments as well as charitable organizations is incalculable, and detracts mightily from the nation's gross national product.

U.S. corporations pay dearly for education's shortcomings. Each year, to train and upgrade workers, business spends approximately $250 billion — an amount comparable to the annual expenditure on U.S. public elementary and secondary education. Companies are growing ever more concerned about the paucity of employees who have adequate reading and math skills. Motorola, for example, has its own in-house university for remedial (and continuing) education. Moreover, as much as $25 billion of the private-sector budget is earmarked for remedial education, and that number is increasing. If these funds were put into research and development, plant and equipment, or stockholder equity, the contemplation of America's future competitive posture might be less troublesome.

Another, more profound cost is lost spending power and tax revenue. According to the National Alliance of Business, the total lifetime earnings lost for the high school drop outs of the class of 1981 alone will be $228 billion, with an estimated tax loss of $68.4 billion.

Since the 1983 landmark education report, *A Nation at Risk*, hundreds of reports have been issued on our education problem. Television shows deal with the subject regularly. Local newspapers and national magazines discuss education at length — its dismal state and its prospects for renewal.

What do our European and Japanese counterparts think? According to Harvard economist Benjamin Friedman, who wrote *Day of Reckoning*, they're hardly impressed. "Talk to any businessman who's been to Europe recently," he writes, "and he'll tell you that many Europeans now see the U.S. as irrelevant. Talk to any businessman who's been to Japan, and he'll tell you that the Japanese are openly contemptuous."

From Obsession to Action

Certain views notwithstanding, there is reason to be hopeful. The American people have demonstrated competence and willingness to confront and overcome other historical challenges just as overwhelming as the education hurdle. Now we must make another great national effort: a categoric commitment to construct, staff, and equip electronic schools across America. This commitment must have the urgency of the Marshall Plan, the single-mindedness of the Manhattan Project and the vision of the Apollo moon landing. As Terrel H. Bell, former U.S. secretary of education, said: "We cannot truly reform U.S. education until its failures become a national obsession."

James J Higgins is CEO of Higgins Inc. He has been involved in the business of education for more than 20 years.

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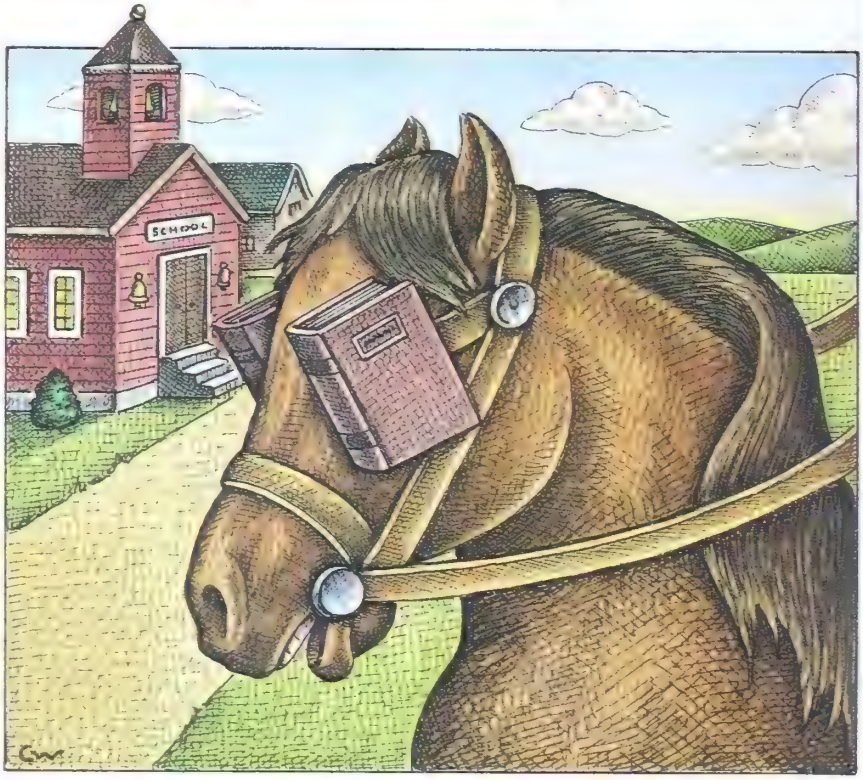
Education in the Information Age

A New Learning Enterprise

BY LEWIS J. PERELMAN



War has become too important to be left to the generals," Churchill observed. Similarly, learning has become too essential to the modern economy to be left entirely to the schools. No subject is more important to business leadership than the technological transformation of learning. And yet none has been more broadly misunderstood or underestimated.

Imagine, for instance, that it's near the end of the 19th rather than the 20th century. A national task force on "excellence in horses" has issued a report exclaiming that America is "at risk" because its horse breeding and training are afflicted by a "rising tide of mediocrity." Russian, Japanese, and German horses, the report warns, eat more oats, pull heavier loads, and can run faster and farther than American horses. Since everyone knows that the horse is essential to agriculture, transportation, industry, and the military, it's obvious that an all-out effort is needed to raise the quality of U.S. horseflesh if America hopes to be competitive in the 20th-century world.

Oh, by the way, the task force suggests that since the "horseless carriage" seems to be becoming pretty popular, all horses and their trainers should take a course in "automobile literacy" so that they won't be scared by the noise of these curious contraptions.

Imagine, too, that top business leaders, instead of investing in Ford, Delco, and Goodyear, and instead of lobbying for paved roads, traffic lights, and parking lots, put millions of dollars into "business-stable partnerships," "wrangler-of-the-year" awards, "adopt-a-barn" programs, "liveries that work" documentaries, and saddle-maker training grants.

As ridiculously shortsighted as those approaches sound, they accurately reflect how technologically blind the past decade's costly and futile education "reforms" movement will appear to future historians. For a technological revolution sweeping through the United States and world economics is totally transforming the social role of learning and teaching. This learning revolution has made the traditional "classroom teacher" almost as obsolete as the blacksmith shop. In its aftermath, most of what has passed for education "reform" will appear as useful to America's battle for global competitiveness in the 1990s as the Maginot Line was to France's national security in the 1940s.

Because knowledge is the steel of the post-industrial economy — the essential commodity all else depends on — learning has become the strategically central enterprise for national competitiveness that steelwork was in the Industrial Age. As a result, the first nation not to "reform" its education and training institutions but to *replace* them with a brand-new, high-tech electronic-schools learning system will be the dominant world economic leader in the 21st century.

Contrary to defeatist rhetoric about America's "lag" in schooling, this is a global race that has not yet begun, and that America is better positioned than any other nation to win. But an array of backward-look-

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ing policies — on communications, employment, and technology as well as education — has torpedoed our advantages in the learning-technology race, slowing our economy to a drift and threatening to sink it altogether.

"Microcosm Economics"

At the heart of the learning revolution is what my Hudson Institute colleague George Gilder calls the "economics of the microcosm": the exploding capacity to create, transmit, and transform information with technologies that become exponentially smaller and smaller, faster and faster, cheaper and cheaper, and ever more prolific and universal. And the key economic challenge facing America and other nations is to liberate the power of this new wave of technology from the hands of monopoly and bureaucracy.

The technology of the microcosm, driven by swift advances in computer science, cognitive science, neuroscience, photonics, mathematics, and other fields, has blown the social role of learning completely inside out.

Learning or education was a task of childhood in preparation for entering adult life and work. Now learning is literally the work of the majority of U.S. jobs and will be what virtually all adults get paid to do by the beginning of the 21st century.

Learning has become the single most critical determinant of national economic competitiveness. Microcosm technology makes so much information available so quickly that the mental abilities demanded by most jobs are far greater than those conveyed by traditional, even "excellent" schools. Analysis by William Johnston and Arnold Packer shows that the people now entering the American work force generally lack the mental training needed for most new jobs. Johnston and Packer found that 41% of 1990s jobs will have the highest level of language, reasoning, and mathematical skill requirements, compared with only 24% of 1980s jobs demanding that level of ability; the average new worker doesn't qualify. Their research also showed that the fastest-growing jobs during the 1990s will be those requiring the most entry-level and ongoing learning, while the fastest disappearing jobs are those that require the least initial training and continuing re-education. For people to be productively employable in the Information Age — and for America to compete favorably in the 21st century — they must have the skills required to manage massive amounts of information. Schools must help people learn how to learn.

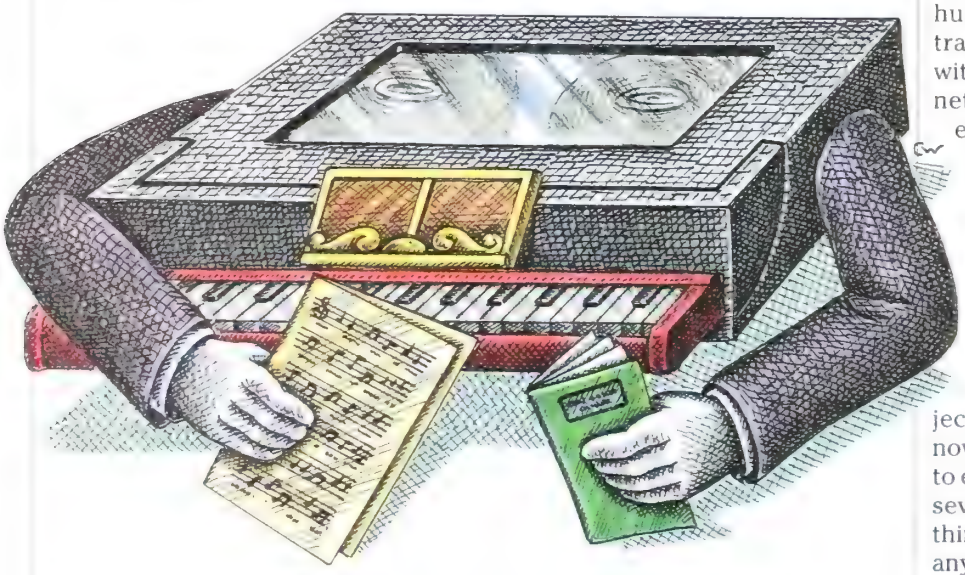
> ***"Learning has become the single most critical determinant of national economic competitiveness."***

Learning was an activity thought to be confined to the box of a school classroom. Now learning permeates every form of social activity — work, entertainment, home life — outside of school. For what piano lessons would cost, you now can buy an electronic piano that will teach you to play it. Only a quarter of American adults know how to program a VCR; a new model will teach you how in any of six languages. The fastest-growing cable TV networks — The Discovery Channel and The Learning Channel — are devoted to learning. Of the more than 45 million people who learned how to use personal computers during the last decade, most learned from vendors, books, other users, and the computers themselves, not in schools. Nintendo and similar "game" products — now in more than a quarter of U.S. homes and climbing — are doing more to cultivate skills needed in the Information Age workplace than are most schools or colleges.

Learning was presented as the result of instruction: A linear, hierarchical process where an "expert" teacher would pour knowledge into the empty head of an obedient student. With knowledge doubling every year or so, "expertise" now has a shelf life measured in days; everyone must be both learner and teacher; and the sheer challenge of learning can be managed only through a geodesic network that links all minds and all knowledge.

Learning used to be a distinctly human process. Now learning is a trans-human process people share with increasingly powerful artificial networks and brains. Even today, expert systems and neural networks are being "trained" by human knowledge engineers; the machines' automated expertise, in turn, is providing "just-in-time" learning for car mechanics, power-plant operators, and a growing legion of other workers.

These facets of the learning revolution are not "Star Trek" projections but are events happening now. We have the technology today to enable virtually anyone who is not severely handicapped to learn anything, at a "grade A" level, anywhere, anytime. The prime determinant of



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America's economic future will be the speed with which high-tech learning is developed and opened up to universal access.

Emerging from the Dark Ages

Blocking the learning-technology revolution that holds the key to America's progress is an education establishment that, as an economic sector, had the worst productivity record of any major U.S. industry. The business comprising education, training, and other investments in learning accounts for $400 billion to $600 billion in annual spending, tying it with health care as America's biggest industry. Education has been unmatched, though, in its wasteful inefficiency and technological backwardness.

Education is our most labor-intensive industry; at 93% of output, education's labor costs are nearly double those of the average business and more than twice those of such high-tech information industries as telecommunications. And, in the midst of a world-shaking information revolution, classroom teaching's productivity is actually declining while the efficiency of all other media is zooming upward.

The reason for education's inefficiency, while rarely mentioned in the "reform" debate, is glaringly clear: Total capital investment — what buys technology — is only about $100 per worker in schools compared with $50,000 per employee in the average U.S. business and $100,000 or more for each worker in many high-tech firms. Of roughly $5,000 the U.S. spends annually for each student in public schools, only about $100 to $200 typically is spent on hands-on learning tools and materials for students.

Nor does education invest much in improving its centuries-old technology. Research and development spending per worker is no more than $5 annually in education; that's up to 10,000 times less than what's spent each year by leading firms in such high-tech fields as computer software. Education's annual R&D investment is less than one-tenth of 1% of revenues — some 80 times less than the average U.S. business, and up to a thousand times less than the R&D spending in high-tech industries.

Not surprisingly, then, the technology of the overwhelming majority of American classrooms is stuck in the Middle Ages; and classroom technology is falling behind the technology of the real world at an accelerating pace. While the rest of America put some 45 million personal computers into use during the last 10 years — creating a $20 billion-a-year industry — U.S. schools acquired a mere $2 billion worth of PCs (often paid for outside the school budget) to provide an average of one PC for every 20 students. At least half these school computers are obsolete. Some complain that computers don't work in teaching, or that good software is not available, or that computer products cost too much. But over 20 years of research shows that computer-based instruction produces at least 30% more learning in 40% less time at 30% less cost. And that is only a long-term average, not the "state-of-the-art." A research survey published in a leading education journal found some 125 technologies or methods that proved to at least double the productivity of teaching — producing twice as much learning for the same time, money, or other cost. Yet virtu-

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ally none of these is being used in U.S. schools and colleges.

Academia's failure to adopt advanced learning technology has nothing to do with a lack of effective tools or a shortage of money. The worker-education departments of U.S. employers are now spending an average of 30% of their employer-provided education budgets on computer-based instruction — about 300 times more than public schools are spending. Employee educators in leading companies are replacing three-quarters or more of their classroom teaching with instruction delivered by computer and telecommunications systems. Their motivations have nothing to do with public relations and everything to do with bottom line: (1) high-tech learning works better; (2) it costs less; and (3) their competitors will flatten them if they don't build productive learning into their operations.

Without critical, structural changes in the system, placing more computers, videodiscs, and other gadgets into conventional classrooms will do nothing to reverse the failure of the education economy; it may actually make things worse. For one thing, we know from the extensive experience of office and factory automation that roughly 80% of the productivity gains from technology innovation come not from new hardware or software but from fundamental changes in management, organization, and human resources. Research by analysts such as Harvard Business School's Shoshana Zuboff shows that even business firms often blow technological opportunities by failing to restructure their social systems to make the best use of microcosm technology that, by its very nature, thwarts bureaucracy and gives "power to the people."

At its root, the technological revolution of the microcosm puts learning and education on a collision course. The essence of education is *instruction* — something some people do to other people, usually with required "discipline." The essence of the coming integrated, universal, multimedia, digital network is *discovery* — the empowerment of human minds to learn spontaneously, without coercion, both independently and cooperatively. Moreover, the microcosm economy not only permits such an explosion of learning beyond the crypt of the classroom, it demands such universal learning for its own genesis.

"The necessity of technology in schools is clear. However, bringing these critical tools to the classroom presents a challenge that must be met by the business community in partnerships with government."

GOVERNOR BOOTH GARDNER
Washington State

The learning revolution is happening and will continue to happen everywhere in our society outside of schools. There is nothing the education bureaucracy can do to stop the revolution, except on its own turf. But education's growing technology gap is widening the economic division of the U.S. population in a way that does greatest damage to our most disadvantaged citizens.

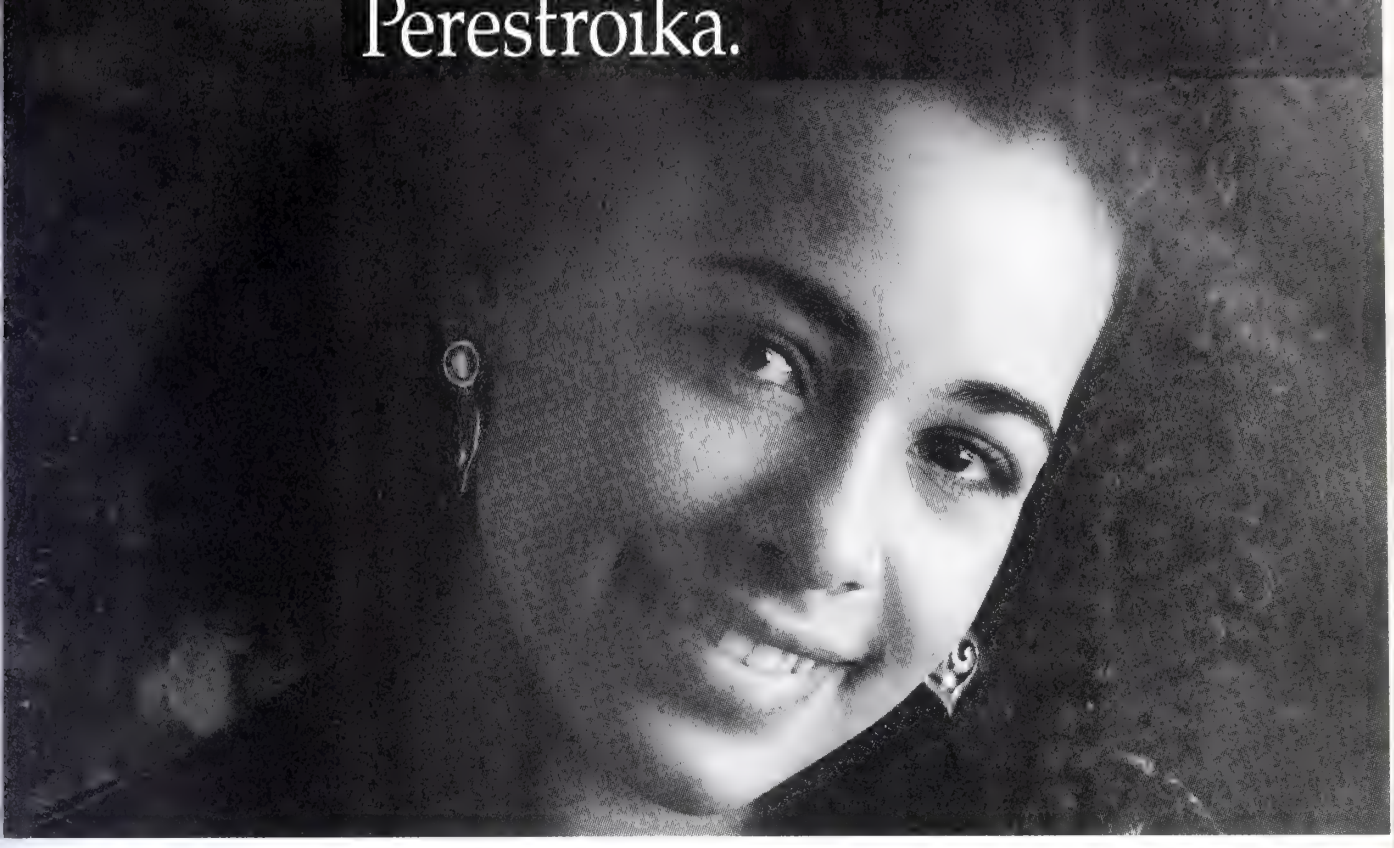
Because microcosm technology is ever more available in the workplace, the home, and the rest of the world outside schools, families with money and the right jobs in the right communities will get access to the high-tech learning possibilities of electronic schools regardless of our public education policies. If business-as-usual "reform" continues, the advantaged class will zap public schools with microcosm technology the way the TV audience is zapping commercials with remote controllers. Public schools will continue on their way to becoming an ever more costly technological and intellectual ghetto for a predominantly poor, disadvantaged, and minority population.

Because 85% of America's new workers will be females, minorities, or immigrants, this social inequity threatens economic disaster. "Saving our schools" will only perpetuate the source of inequality and decline. The time has come to replace education with a whole new learning system.

Give Education the Business

The learning revolution is the greatest challenge and opportunity facing U.S. business. History offers no example of vast bureaucracies voluntarily restructuring themselves from within. Overcoming the education establishment's well-practiced resistance to change will require community-

Perestroika.



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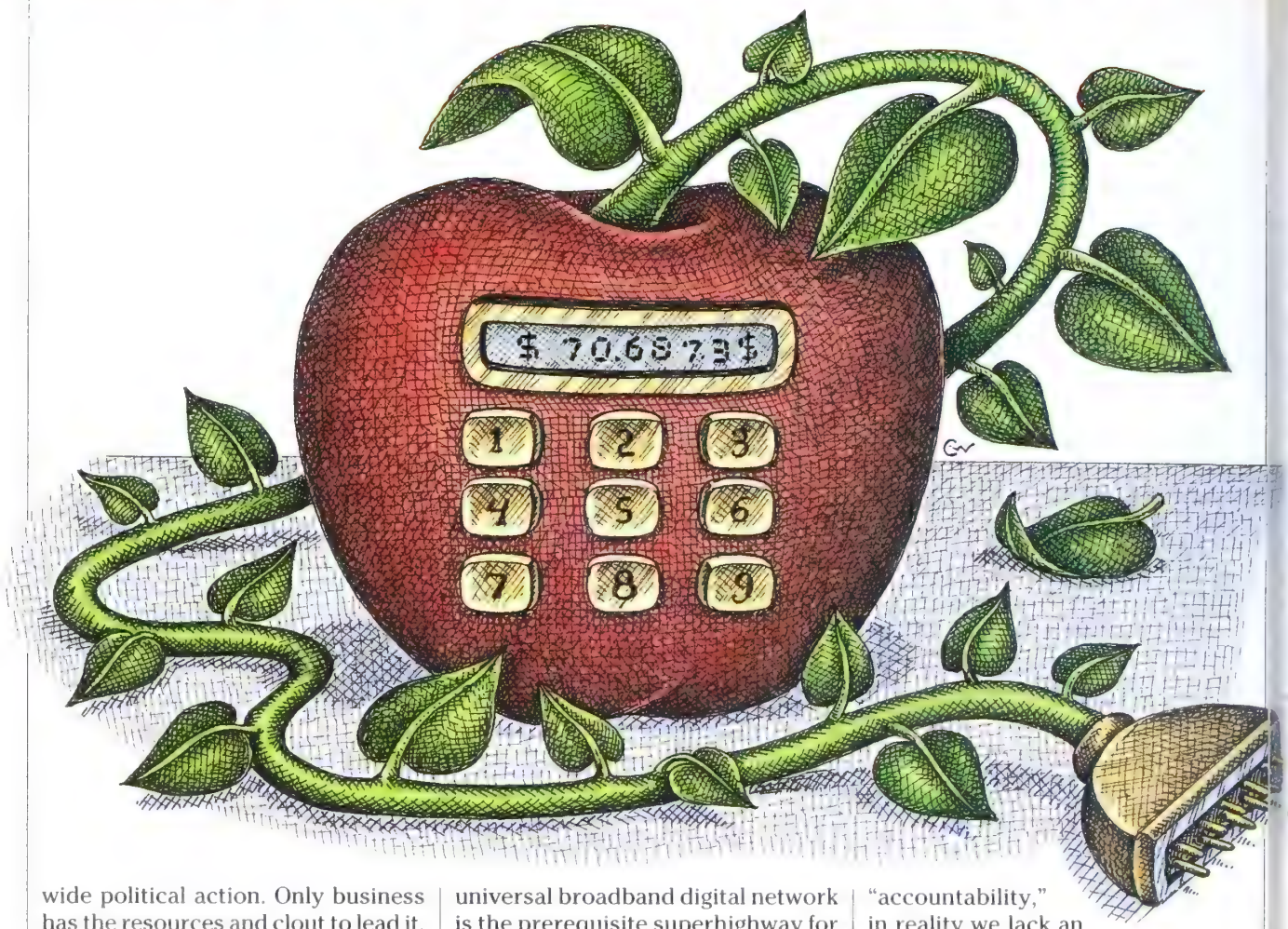


wide political action. Only business has the resources and clout to lead it.

Business leaders often are told that "restructuring education" is a mystically complex, costly, gradual, drawn-out process that will take decades of patient "partnerships" to achieve. In reality, the policy agenda for true technological restructuring of educational systems is simple; it will reduce, not increase, costs; and it can and must be implemented without delay.

"The learning revolution is the greatest challenge and opportunity facing U.S. business."

The top-priority policy change needed not only to transform schools but to revitalize the whole economy is in the domain of communication, not education policy: To remove the legal and regulatory barriers that now block the extension of digital, fiber-optic communication channels to every home and business in America. As what former presidential science adviser George Keyworth calls the "spinal cord" of the Information Age economy, the universal broadband digital network is the prerequisite superhighway for 21st-century commerce and electronic schools nationwide.

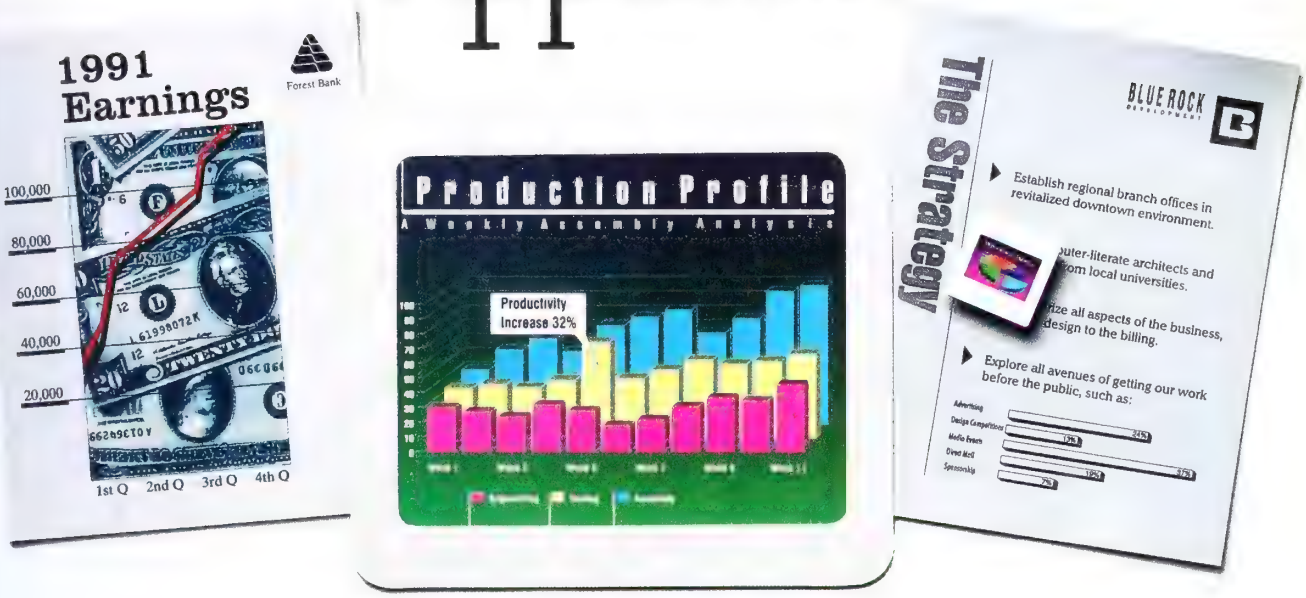
At the same time, we need to get 5% to 10% of existing school and college budgets re-allocated from payrolls and administrative overhead to investment in technological innovation: research, development, and implementation. The key forum for this change is the state legislature, which now makes most education policies and pays most of the bill for schools and colleges. The explicit object of these investments must be a vast increase (at least 100% in this decade) in education productivity: more learning for more people at less cost.

Greater investment in learning technology and electronic schools, while necessary, will not yield improved educational productivity until productivity can be accounted for. With all the talk of educational "accountability," in reality we lack an adequate accounting technology to track actual learning and real costs. Existing standardized tests and school budgets obscure more than they reveal. An important step toward meeting this need is a Commission on Achieving Necessary Skills established by former Labor Secretary Elizabeth Dole. CANS is working with American industry to establish meaningful, sophisticated measures of what U.S. workers need to know and be able to do as a touchstone for more productive training and employment policies.

Business executives will find nothing arcane in this call for replacing today's inefficient and ineffectual education system with a new learning enterprise — one enriched by limitless technological opportunities in electronic schools. It is the necessary prescription for winning the learning revolution, leading the 21st century world, and competing with the best throughout the world.

Lewis J. Perelman is director of Hudson Institute's Project Learning 2001.

Applause.



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Education in the Information Age

The New Revolution

BY JAMES A. MECKLENBURGER

Revolutions occur first in the mind. The idea that modern information and communications technologies can play a major role in learning, teaching, and schooling is revolutionary. From its implementation, new educational practices rise and electronic schools appear.

Moreover, when educators and students use technology effectively, they break through stereotypes and exceed normal expectations of what "school" can be. Unique powers of modern information and communications technologies allow us to create educational systems that produce remarkable results. Schools, teachers, and students become more productive. Curriculum can be as timely as the news; the world shrinks while student knowledge of the world swells; instruction is individualized and teachers can interact with students on a more personal basis; consequently, graduates are readily employable and business becomes more competitive.

But for schools across America to work like this, a revolution must occur — a technological revolution in education. We have at hand the power to bring about such a revolution and erect electronic schools across America.

As we consider large-scale use of information and communications technologies in education, we should remember that not long ago, similar ideas were considered revolutionary in business, law, science, medicine, and government. They were often misunderstood and resisted. Still, American society now provides ample precedent for a technology-

The National Geographic Kid's Network lets these students in Arlington, Virginia share scientific findings with teammates around the world.

supported revolution in schooling.

However, neither business leaders nor educators have yet determined how the 20th century's miraculous electronic inventions relate to America's marvelous 19th-century invention: universal public education. Even many proponents of "restructuring" education do not consider the tremendous potential of technology to equalize opportunity and increase competence in schools nationwide. It's time we did.

The use of technology has radically changed everyday business practices. You will not be surprised to learn, therefore, that computers, electronic databases, simulations, on-line communication, video, CD-ROM, satellites, and other such technologies can make schoolwork more interesting, teachers more capable, and students more engaged, and — not to be overlooked — schools managed more efficiently.

But most educators simply don't use much technology. They don't care to, or are not required to. Their schools are not equipped with technology, or they lack the proper training. Consequently, and unfortunately, neither do their students who must compete in an increasingly technologically intensive workplace.

Fortunately, in a small but growing vanguard of schools and communities — often inspired by local business leaders — new, technology-centered educational practices have created a more satisfying and effective education system. This vanguard provides many exemplary practices in single classrooms and entire school districts. There are even a few statewide and national projects that hold great promise.

Yesterday's Invention, Today's Tradition

With rare exceptions, and as illustrated by Lewis J. Perelman's essay earlier in this section, the educational technology revolution is generations behind most other segments of society. Business people already live in an "information age" in which "knowledge workers" practice their professions in a "global village." But America invented its public school system in the mid-19th century. At that time, we believed that knowledge could be concentrated in each

High school students in Texas study science using sophisticated interactive-video technology.

neighborhood in an island known as "the school." This invention pushed the greatest information tools of that era to their limits: teacher lectures supported by textbooks in age-graded, sequenced courses of study.

This invention, frozen for a century, has become tradition in the education system. America has invested heavily in this tradition: in better books, teachers, and tests; for better buildings and better funding. But traditional educational investment has little earmarked for technological information. According to Talmis, a market-research firm, the typical schools in 1990-1991 will spend just $35 per student — less than 1% of its budget — on all information-age technology.

We need to do much more than put a $35 veneer of new technology on the old system. Students need access not only to books and teachers, but also to the electronic capabilities with which people learn in and out of school. The goal of ensuring young people have access to society's knowledge is still essential, but its meaning must expand. The read/listen/test/grade method of schooling is behind the curve while, regrettably, the electronic school remains at the head of the curve, but outside the creative grasp of most students.

The Leading Edge

Today, in many classrooms, the revolution has created environments in which both teachers and students become knowledge workers in a wired nation and a global village. Extraordinary things are happening in these schools. Indeed, the tiny sampling that follows just hints at the possibilities a full-scale technology revolution will bring about.

- A coalition of Texas school districts known as the Texas Learning Technology Group determined that teachers would be more effective if they used technology to act less as presenters of information and more as managers of learning environments. They developed the 9th Grade Physical Science Project, which uses sophisticated interactive-video technology (computers connected to videodisc players) to present about 60% of the material formerly presented by teachers. Bottom line: Now, in many of the schools, less than 5% of science students fail, as opposed to 50% previously.
- Teachers traditionally have been isolated from one another. Information technology offers the opportunity to end this isolation and to engage teachers in communities of peers within a building, within a district, across the nation, and around the world. Such connections enable teachers to become more effective by staying current with knowledge in their field, with teaching practices, and with available new resources — much as today's doctors and other professionals do. A growing cadre of teachers who have access to the technology now stay in touch with other teachers.

For example, the Coalition for

"EXCEPT for the RAW OCTOPUS I really loved NAGOYA."

NEWBERRY, SOUTH CAROLINA, is a long way from Nagoya, Japan. But last summer as a guest of the Watanabe family, Anna Carter found the two places were a lot closer than she imagined. "I had an incredible time," she says.

Her Japanese hosts spoke English and were as kind as could be. They sometimes even prepared American style meals just so she wouldn't get homesick.

But after all, the main idea behind the "Summer in Japan" program is to give young people a chance to experience other cultures.

To live the way other people live, strange customs and all.

Japanese meals can be an adventure for anybody. How did they go down with Anna? Tempura was nice. And teriyaki's tasty. But as for raw fish, especially sea urchins and octopus, well, the less said the better. "Sometimes I'd have given *anything* for a slice of pizza," she laughs.

There were so many fascinating things about the people and the places she visited, though, that she is eager to go back.

"For someone who'd never been outside the U.S., it has really opened my eyes. I made lots of friends, and I'd love to see them again."

Toyota wholeheartedly supports the "Summer in Japan" scholarship program.

Administered by the Youth For Understanding International Exchange, its aim is to help American kids better understand Japanese culture. A companion program brings Japanese kids here. And in so doing, helps foster close friendship between the two countries.

Since 1975, more than 200 Toyota Scholarship students have taken the trip across the Pacific.

The way we see it, nothing broadens the mind more than getting a little taste of the way other people do things.

TOYOTA

INVESTING IN THE INDIVIDUAL

Essential Schools at Brown University and the Mastery-in-Learning Network at the National Education Association are far-flung networks of dozens of schools committed to change in practice. Teachers in these projects are in daily communication via electronic mail and electronic bulletin boards, building a supportive sense of community among innovators and providing access to a huge potential database of advice and resources.

Communications and information technologies also present vast opportunities for students who have been neglected by the education system — students who are physically and/or mentally handicapped. The Kennedy Day School at the Franciscan Children's Hospital in Brighton, Mass., illustrates how computer networks and on-line systems can eliminate the barriers that prevent disabled students from participating in schools.

For students confined to hospital beds, the close proximity of the school is insignificant. However, with the implementation of a communications network, these students are directly linked to the classroom. Students can "attend" and participate in classes, access libraries and outside resources, and contribute to the community through the school newspaper. Information technologies and communications networks make the world more accessible by enabling handicapped students to overcome physical and/or mental limitations.

■ Schools need to become more relevant to students' lives outside school, and to the lives of adults around them. With access to sophisticated information technologies, and encouragement from teachers who exemplify their use, this connection with the real world is made possible. The National Geographic Kids Network, for example, has engaged thousands of students to seek original data in their own communities about topics such as acid rain or soil conditions. The students share that information to create their own real-world database about the vast implications of the issue being studied. No longer primarily note-takers of teacher-presented information, they use information from the world's "real" resources and craft it into forms that are meaningful to them.

"American society now provides ample precedent for a technology-supported revolution in schooling."

JAMES A. MECKLENBURGER
Director, Institute for the Transfer of Technology to Education

■ Not all schools have access to or can afford all the learning opportunities they know would enrich the learning experiences of students. Distance learning, the educational equivalent of the business videoconference, is a strategy to exploit scarce resources, to save cost and time, and to equalize opportunities. For instance, "German by Satellite" is provided by the Arts and Science Telecommunications Service of Oklahoma State University. It enables a native-born German professor to teach German to students in remote sites in several states. In Fairfax County, Va., students experienced live-by-satellite "electronic field trips" to mainland China, held discussions with students in Wales, and even spoke with British Prime Minister Margaret Thatcher. A host of businesses, ranging from AT&T's Distance Learning Network to GTE's World Classroom, offer state-of-the-art distance learning networks to schools.

Today's electronic schools, wired and equipped for the information age, are becoming environments similar to those graduates will find when they enter the work force. Technology-supported education promises graduates who are not only more motivated, independent learners, but graduates more ready to function as creative, competitive 21st-century workers and managers.

Unique Contributions of Technology

By redirecting the enormous power of technology into the education system, government and business, in partnership, can create dynamic and productive learning environments for America's youth. The educational technology revolution can affect the processes of education in these ways:

■ Educational technology can ease access to information from many sources and make massive amounts of information available in many forms to disparate locations.

■ Information and communications technology can connect people and institutions, providing resources as well as making learning more flexible and portable.

■ Technology can customize instruction to accommodate individual student needs and progress.

■ The implementation of educational technology will increase the arsenal of possible education activities.

■ Technology can save time for teachers, students, and administrators by reducing the drudgery of tasks and refining the learning process according to each student's capabilities.

■ Information Age technologies can prepare students for the work force, and narrow the gap between school and the workplace.

Information technology throughout our society is the most powerful educational force since chalk, and eventually the schooling system will evolve to take advantage of, or be replaced by, a new and timely system.

The Information Age is 40 years old in the business community, even as it remains "revolutionary" in education. Business is thus well positioned to support and encourage educators who dare to embrace the idea that modern information and communications technologies will transform the education system, and lure our children back into a disciplined, meaningful learning process equipped to provide our nation with a motivated and competent 21st-century work force. It is urgent that we provide this generation with the rich learning opportunities and technological transformation promised in electronic schools, and make an enlightened, collective investment in the technological transformation of education across America. Your bottom line depends on it; America's future is at stake without it.

James A. Mecklenburger is director of The Institute for the Transfer of Technology to Education.

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Education in the Information Age

The Digitization of Schools

BY SENATOR AL GORE, JR.

Computers in education present nearly unlimited opportunities as tutors, as teachers, and as motivators. Many educators have devoted their careers — or at least all their spare time — to developing new ways to use computers in the classroom. And most are heartened by the fact that computers are no longer being treated as toys, but as tools — essential tools — in electronic schools throughout the country.

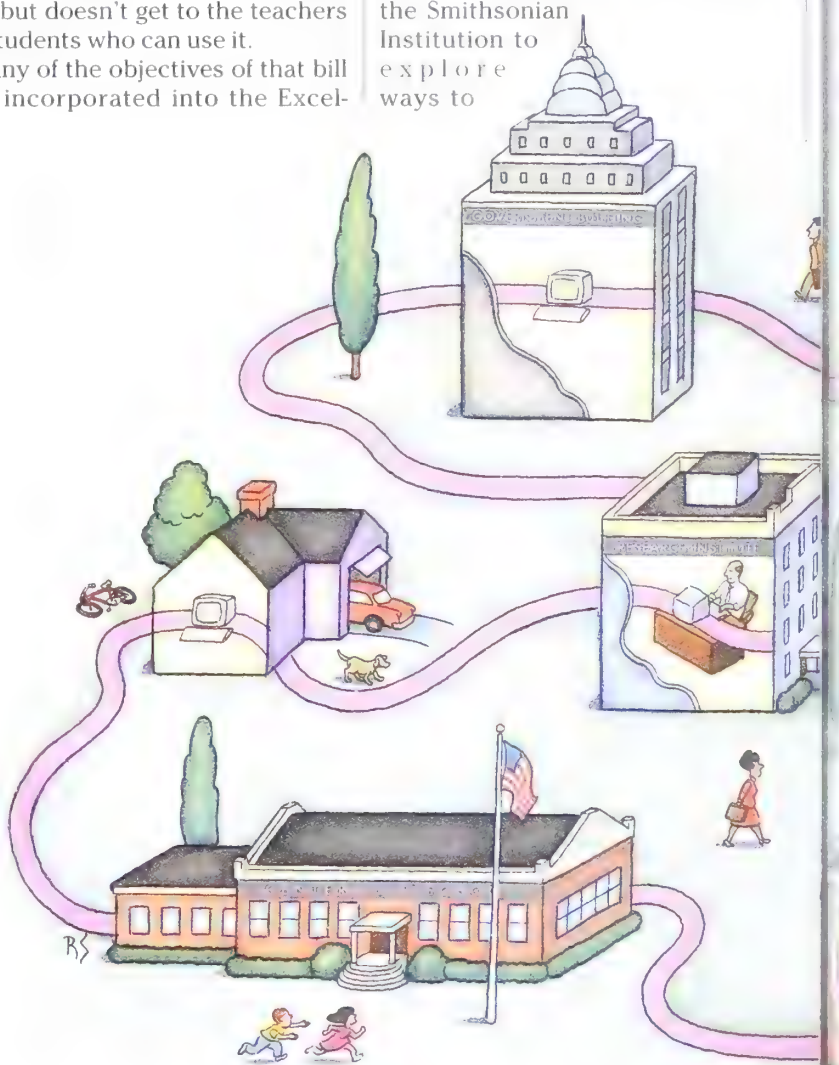
Recently, in the Washington, D.C., area, two grocery-store chains (Safeway and Giant Foods Co.) sponsored a contest. If a school collected enough cash register receipts for groceries, it could win an IBM or Apple computer or printer. The participation was so great in one program that the store gave out more than 1,000 Apple computers and printers to area schools.

Schools everywhere are desperate for computer equipment so they can take advantage of the exciting new educational software that's available, and businesses are helping to meet the need: Scott Paper Company's Learning Tools for Schools program offers computers, software, audiovisual, and other equipment to students in exchange for "Apple Seals" found on the packages of Scott Paper products. The Pet Dairy "Food for Thought" school program makes computers and encyclopedias available to schools. And Del Monte Foods offers software technologies to schools in cooperation with the Computer Learning Foundation. These are a few examples.

National Impetus

I have been interested in educational computing for a long time. As a member of the House, I introduced legislation to stimulate development of educational software. Most recently, I introduced in the Senate the National Education Software Act to speed distribution of new software. Too often, good educational software is developed but doesn't get to the teachers and students who can use it.

Many of the objectives of that bill were incorporated into the Excellence in Mathematics, Science, and Engineering Education Act of 1990, of which I am an original cosponsor, has been introduced by Senator Edward M. Kennedy. Among other things, the bill would establish a National Institute of Technology and Learning at the Smithsonian Institution to explore ways to



use advanced technologies in education. The institute would serve as a focal point for educational computing. So far, the use of computing in education has been a diffuse, grassroots activity, and there has not been a single, federal agency where one could find out about the latest developments in the field.

The Kennedy bill will do a great deal to promote the development and use of educational software, but more needs to be done. We need better, faster, more powerful, and cheaper computers, and we need faster, more sophisticated computer networks to connect them. That's why, last year, I introduced bill S. 1067, the National High Performance Computing Act of 1990, a comprehensive bill to ensure that this country keeps its lead in computing and networking. This bill gained broad partisan support and passed the Senate. Unfortunately, no action was taken in the House. As soon as Congress convenes in January, I plan to reintroduce the legislation. I'm confident we can approve this proposal.

The centerpiece of the proposed legislation is the National Research and Education Network (NREN), a multi-gigabit, fiber-optic computer network that would connect more than 1,000 schools and research laboratories around the country, allowing students, researchers, and others to share information instantaneously. The NREN would be able to transmit billions of bits of data per second; that's the equivalent of sending the *Encyclopaedia Britannica* in a couple of seconds. In many ways, it would be like the National Science Foundation's NSFNET, only much bigger and about a thousand times faster. It would link more than one million students, teachers, librarians, and researchers in high schools as well as colleges and universities.

NREN is an essential step to a truly national, universal, fiber-optic network that will connect every home, every office, and every school in the United States. One day, we will have "fiber-in-the-home," and networking will be as easy as using the telephone is today. But that will require billions of dollars to lay millions of miles of optical fiber. No one is going to invest that kind of money to develop a product without knowing there will be demand for it. In a way, the NREN is a demonstration project for the universal fiber-optic network that will be available in the next century. As such, it will provide the catalyst needed to mobilize the telecommunications industry to build commercial gigabit networks. And, according to witnesses testifying on the NREN, it will speed the development of commercial networks by five or even 10 years.

"One thing is certain: The information revolution is changing our lives, and we need to prepare ourselves to cope with its promise and potential."

SENATOR AL GORE, JR.
Tennessee

Freedom of Information

A national fiber-optic network could allow a schoolchild in Tennessee to use his PC to tap into the Library of Congress and access millions of "electronic books." That same child could explore any topic he or she wished, from airplanes to dinosaurs, from Dr. Seuss to Shakespeare, from "Star Wars" to "Star Trek." And the network would deliver more than just text; with the push of a few buttons, the student could get text, music, or even video. The flow of information would not have to be one-way: The child could interact with the information, picking and choosing, just as he might browse through stacks in a library.

That single, thin strand of glass connecting a child's computer to the Library of Congress or some other data center would provide access to

thousands of times more information than could be available at a school library. That single fiber would mean escape from the bounds imposed by limited school budgets or poorly equipped classrooms. That fiber would be a connection to the rest of the world. The global networks we are building will allow a student in Tennessee to communicate with electronic pen pals around the world. What better way for a child to learn about the world — its different people, different cultures — than by talking to children in other countries?

Today, business people, scientists, engineers, and a few million computer hobbyists know the power of computer networking. They also know that networking can multiply productivity manyfold. But imagine that the network could transmit not just text, but video and voice. It's easy to imagine uses for such a system, because prototypes are already available, but they are limited to speed and size. The really exciting services are yet to come. Today, researchers are using supercomputers to build "virtual realities" that let users explore artificial worlds existing only in the computer's electronic circuitry. In a few years, that same technology will be used to develop interactive, digital television programs, brought into every school and home by optic fiber.

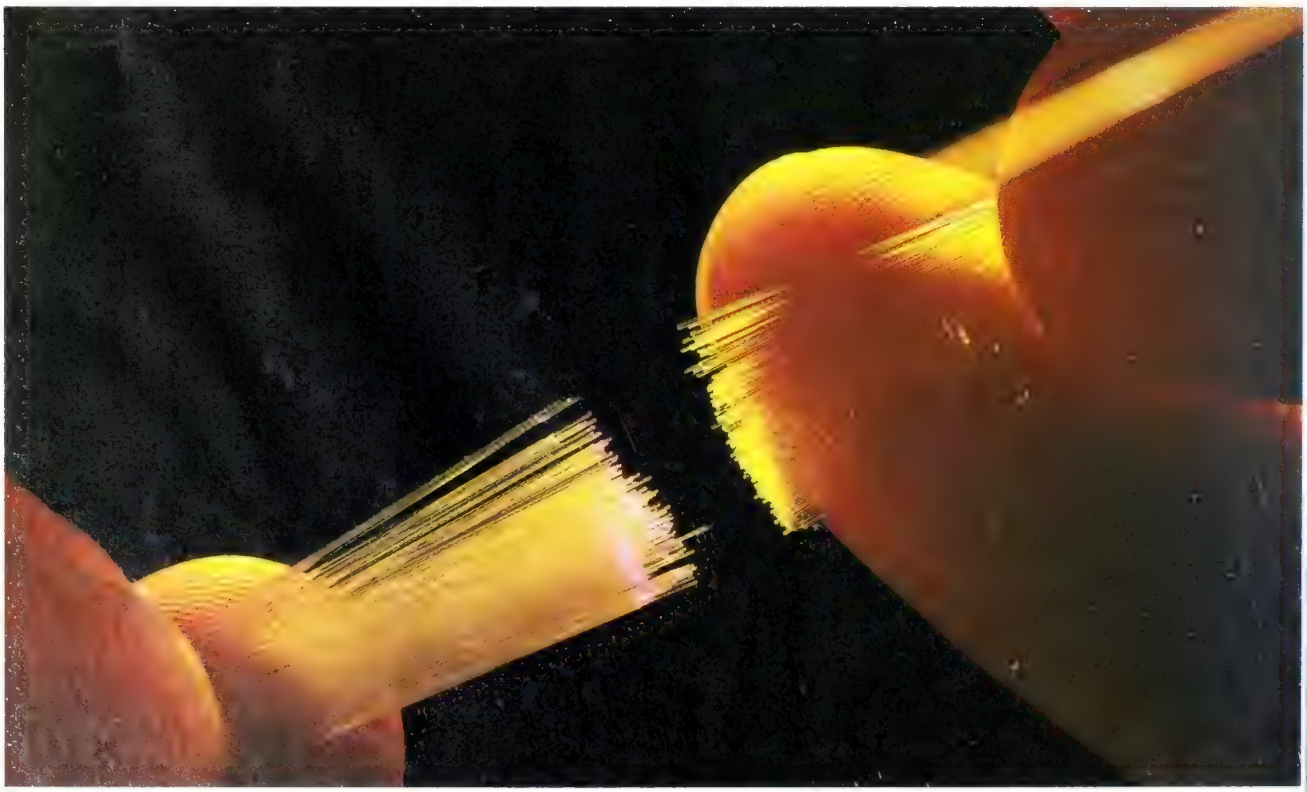
But the most exciting uses are not even on the drawing boards, because they are beyond our imaginations. When the first Xerox copier was introduced, there were many businesses, universities, and schools that weren't sure they needed such a thing. At one university, a special committee was set up to decide how many copiers the school would need. The committee decided that one machine was more than enough. You just cannot predict such things.

The story is much the same with most technological revolutions. The vacuum tube was a kind of paradigm, which engineers spent years improving, bit by bit, until the transistor and the integrated circuit revolutionized electronics. Such technological revolutions are as dramatic as they are unpredictable. They require a new technology that offers orders-of-magnitude improvements in performance in productivity. And, they require that the scientific community, business, education, government, and the public cooperate to find new uses for the new technology.

The Fiber-Optic Future

Fiber optics has started a technological revolution in both computing and communications. The National Academy of Engineering lists fiber-optics communication as one of the most important engineering achievements of the last 25 years. Fiber optics is clearly every bit as revolutionary as the transistor. A single fiber-optic fiber can carry hundreds or thousands of times the number of channels carried by the largest copper telephone cable. It is making possible the "digitization" of America. Digital television, for example, will make HDTV as outdated as 78 rpm records. It will make it easy to shift billions of data bits from an East Coast school to a West Coast school in seconds. It will change the way we view the world, just as the Copernican revolution did in the 17th century. And it will drive the electronic school revolution in the 21st century — helping to make America more competitive.

Senator Al Gore, Jr., (TN) is the sponsor of the National Education Software Act and the National High Performance Computing Act.



Fiber optics has started a technological revolution in both computing and communications.

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Changing the System

Restructuring Through Technology

BY ISABEL BRUDER

By evening on Oct. 19, 1989, there was still enough light for San Franciscans to see that the foundations of their lives were literally gone. Second levels of buildings sat where first floors had been, eerily evident by the lack of front doors. Highways were twisted like plastic toys in the sun. It was obvious what needed to be done. The city began by replacing structural foundations with new, improved designs and earthquake-proof materials. They used new approaches to achieve the same results.

The requirements for change in American education are hauntingly similar: Similar because its foundation requires serious restructuring; haunting because, to date, school restructuring has basically involved new approaches to achieve the same results. But, critics say, schools must fundamentally change the way they operate if we are to produce generations of workers who can function, contribute, and even excel as society moves from the Industrial Age to the Information Age — and as education progresses from the Horace Mann era to the dawning of electronic schools.

"Restructuring will be effective only if we teach skills that society requires," says Alan November, technology consultant for Glenbrook High Schools, Glenview/Northbrook, Ill. "It's a paradigm shift. Schools have become more and more separated from society in the last 40 years. Chances are, the tools used in schools 40 years ago were the same tools used at work. Today, what is

used in schools is far from what is used on the job."

Today, educators are embracing technology tools, such as personal computers, electronic dictionaries, handheld calculators, VCRs, videodiscs, compact discs, satellite programs or instructional television, and even telephones to develop necessary skills. Technology in schools can expedite administrative tasks and create new learning structures for students and teachers.

"Technology is not, nor should it be, the pivotal factor in restructuring," asserts Linda Roberts, senior associate for the congressional Office of Technology Assessment (OTA) in Washington, D.C. "But what is striking," she adds, "is technology [use] breaking down traditional barriers and opening up opportunities for students and teachers."

As the education and business communities know, things worth having are indeed worth waiting for. Especially in education, change cannot, does not, and should not happen overnight. As one Kentucky State Department of Education official put it: "Change is a process, not an event." But happen it must, consistently and with purpose.

Robert Pearlman, national educational-technology consultant to the American Federation of Teachers, a 750,000-member union, sees the ultimate goal for educational restructuring as "actually changing the way teachers teach and the way students learn." By this, Pearlman means that students should assume a more active role in their own education and teachers should be "upskilled" to developers and managers of learning activities, rather than remaining as lecturers or organizers of rote tasks. So, too, must parents and communities start taking responsibility for the preparation of future generations.

State Initiatives

A number of states are tackling restructuring, but perhaps none has a plan as all-encompassing as Kentucky, which has allocated $1.3 billion for the first two years of its educational reform initiative. Closely monitored as a possible model for the rest of the country, this reform is a result of a state Supreme Court mandate that declared the entire public

education system unconstitutional.

The overall goal of Kentucky's education restructuring is an eventual shift to site-based management and shared decision making. In other words, teachers, administrators, and parents will share responsibility for the education of students in 1,353 schools.

In an effort to restore financial and educational equity to the state's 176 districts, the sweeping reform calls for a number of dramatic changes, such as a 1-cent sales tax hike, as well as a complete reorganization of the Department of Education that includes replacing the state superintendent of schools with a commissioner of education. Coupled with changes in curriculum are provisions for $48 million worth of educational technology.

"Kentucky's reform is very important because the use of technology is being tied to addressing educational needs," says the OTA's Roberts, "but technology is not driving the effort; educational needs are."

Kentucky's deputy superintendent of schools, Betty Steffy, says the reform is "going quite well" so far, and she is "excited about the possibilities" of technology, "but I can't say it is the most important part. All aspects are intertwined."

For example, Steffy anticipates technology will be most beneficial with a new, non-graded elementary program that should be in place by the 1992 school year. The program groups students traditionally separated into grades kindergarten through three. The students are divided as each district sees fit. "We are definitely going to need technology to deal with that," she says.

Technology will also be used in new instructional ways, but exactly how is yet to be determined by each district. The task of how to spend the $48 million falls to a special Technology Council appointed by the governor. The nine-member advisory council — composed of two district superintendents, local business people, a state computer coordinator, the secretary of education, and others — is still in the planning phase.

Lydia Wells Sledge, director of the Kentucky department of education's Unit for Mathematics and Technology, says interest among local dis-

tricts "is at an all-time high" in terms of technology. Part of the excitement may stem from the state board's plan to put a computer and a telephone in every classroom. "The law mandates that technology is one means of obtaining educational equity," says Sledge. "Whatever we come up with, technology has to help close those gaps. Administrative or instructional, the same services must be available to small, rural districts as well as larger ones."

> ***"Efforts must be devoted to matching technology with a curriculum designed to educate children to participate in an increasingly global environment."***
>
> ALBERT SHANKER
> President, American
> Federation of Teachers

Kentucky has set out to do what many restructuring plans aspire to: Change the structure of the teaching/learning process. One way is to move to a system based on measuring output (what students accomplish) instead of input (minutes on task or accreditation).

"A lot of people think technology is just to help them do the same old things in brand new ways," says Sledge. "Technology provides the vehicle and the format for doing entirely new things. But the most important thing about all of this reform is teacher training. If we don't put emphasis on strong training to implement all these programs, it just won't happen."

Other states are, of course, restructuring to different degrees. Michigan, for example, is giving nearly $18 million worth of computer systems to about 8,000 of its teachers this year. The program, called Classrooms of Tomorrow, began in February 1989 when the state's 80,000 teachers were invited to submit proposals for computer systems to be used in their classrooms. About 24,000 responded, and in July 1990 teachers in 416 districts were awarded their choice of an Apple, IBM, Tandy, or Zenith system.

"We went after teachers who previously didn't have access [to computers], for whatever reasons," says Daniel Schulz, assistant to the state superintendent of schools. "This finally got them thinking about using technology."

What Districts are Doing

While statewide efforts often focus on financial restructuring, district

The most important reform needed is strong teacher training to implement new technology programs.

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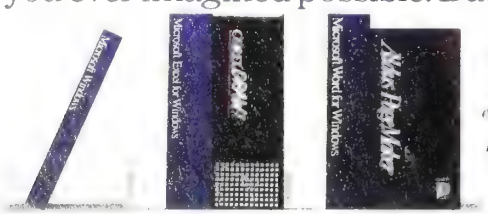

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and local school reform tends to go right to the heart of learning: the classroom. One such example is the Central Kitsap School District in Washington State.

With 16 schools, 600 teachers, and 11,000 students, one of the most intriguing and sensible aspects of Central Kitsap's reform is that teachers have been involved in the process from the onset and continue to have an active role. This is site-based management and shared decision making to a tee.

The philosophical and pedagogical tone for reform in Central Kitsap is outlined in a comprehensive report, "Strategy 2020," developed by teachers, administrators, parents, and community members. The report is "a blueprint for techniques that actively engage the student and teacher," says Warren Olson, assistant district superintendent. "It also helps define the role of technology in supporting teaching, and it redefines the role of the teacher."

The driving force behind 2020 is the concept that change is acceptable and encouraged, when necessary. For example, at Cougar Valley

Elementary, which last year became the district's first totally restructured school, teachers decided to create "multilevel classes," putting students from two grade levels into one group. At the end of the first year, the teachers said that the multilevel classes weren't working. With the support of administrators, they are back to traditional grades but have implemented "cross-age grouping," so students from upper grades work with lower-grade students. The idea is to create cooperative learning in the style of "real world" cooperative atmospheres.

Technology is everywhere in Cougar Valley, and in the district's newest restructured school, Silver Ridge, which opened this year. But technology is used in different ways at the two schools because the staff at Silver Ridge watched Cougar Valley its first year, then altered the plans to fit their own needs. In Cougar Valley, for example, 32 computer learning labs are set up for instruction; at Silver Ridge, computers are set on carts and move from room to room.

Flexibility is a recurring theme in restructuring. In the Chitendon South Supervisory District in Vermont, for instance, time is viewed as a variable factor, not a constant. "We all learn at different rates," says Superintendent William Crocoll. "Time as a variable means no more fixed elements — such as a 44-minute class — that almost guarantee kids won't learn."

Crocoll's district is spending $7.2 million to build an addition to its Williston school because it needs the extra space. But the end result is that the addition eventually will be restructured, as will the rest of the building. More important than the dollars, Crocoll says, "is the fact that local business people are endorsing what we're doing, and that gives us a degree of legitimacy" with the rest of the community. "Education," he points out, "does not begin and end inside the walls of the school."

One Step Further

Many districts restructure to accomplish new things, not simply to duplicate with technology what can be done on paper. Illinois' Glenbrook High School District started restructuring seven years ago, says Superintendent Jean McGrew. With two high schools and 4,000 students, there is $1 million in the district's budget this year for technology, and that doesn't include training. Already the district restructuring has added computer labs, networks between school and district offices, and a computerized library system. Now the district is looking into developing its own interactive videodiscs (using a videodisc player, software, and computer to manipulate data and create individualized instruction).

"One of the biggest problems has been that most educational software is still merely a book on a computer," McGrew says. "The mentality is to do it that way. The conceptualization [of using technology in education] needs to change."

> ***"What is striking, is technology [use] breaking down traditional barriers and opening up opportunities for students and teachers."***
>
> LINDA ROBERTS
> Congressional Office of Technology Assessment

Among the district's many projects is one using computer-aided design programs to design, build, and sell a house each year as part of the building trades class. The district has been doing this for 20 years, but only recently with the help of technology. "And we sold our last house for $420,000," says McGrew.

Why did the Glenbrook district restructure its approach to learning to include technology? "It was a recognition," says McGrew, "that the technology end of education was something that would undoubtedly develop rapidly over years to come, and we had to start thinking about how that was going to apply to us."

The problem with putting technology into the education system, he adds, "is that you're going to put this element into a shape that has been patterned over 100 years. Everybody is familiar with that shape. The risk is that it will end up a peripheral item, like having a regular class all week and, on Friday, showing a movie."

Isabelle Bruder is senior editor of Electronic Learning *magazine in New York City.*

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We would like to hear from other companies that wish to become involved in learning research. After all, the stakes are high: today's high schools are graduating 700,000 functionally illiterate young people, and 700,000 more drop out each year. If something isn't done to change this trend, our country's ability to compete in world markets will be severely threatened.

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Changing the System

The Three Rs: Research, Redesign and Reform

BY CHARLES D. WINSLOW

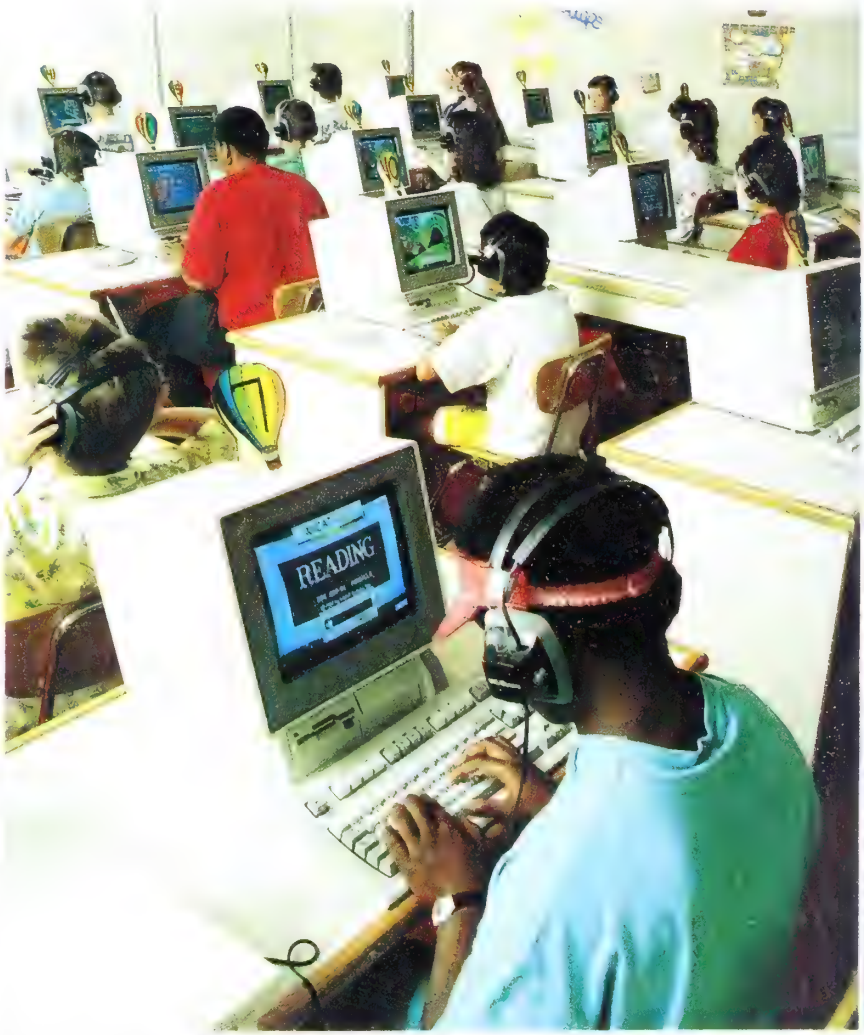
BUSINESS MUST ACT. In April 1983, Terrel H. Bell, then U.S. secretary of education, issued a landmark study on the state of the American education system entitled "A Nation at Risk." Since that time, the stakes have been raised even higher.

American business must set to mitigate this risk. At a time when the Bureau of the Census reports a profound decline in the number of young people entering the work force, we cannot afford to take an increasingly scarce resource for granted. The potential for achieving competitive advantage demands more than a work force with basic skills: Everyone must be well-educated and competent in the fast-changing technologies of the workplace.

Time for Breakthroughs

Scores of "solutions" have been thrown at the problem: business volunteer programs, "adopt-a-school" initiatives, strategic planning seminars, in-kind grants, and other well-intentioned efforts. Yet the school drop-out rate hovers around 50%, SAT and ACT scores decline, and even our best students are losing ground to students abroad.

The time for such piecemeal approaches is over. Breakthroughs are required in productivity and educational quality — similar to the kinds of advances that have positioned the most competitive American companies as leaders in an international marketplace. Achieving these breakthroughs will be possible only by making a fundamental paradigm shift that addresses the "three Rs" of educational reform — first research, then redesign and finally reform.



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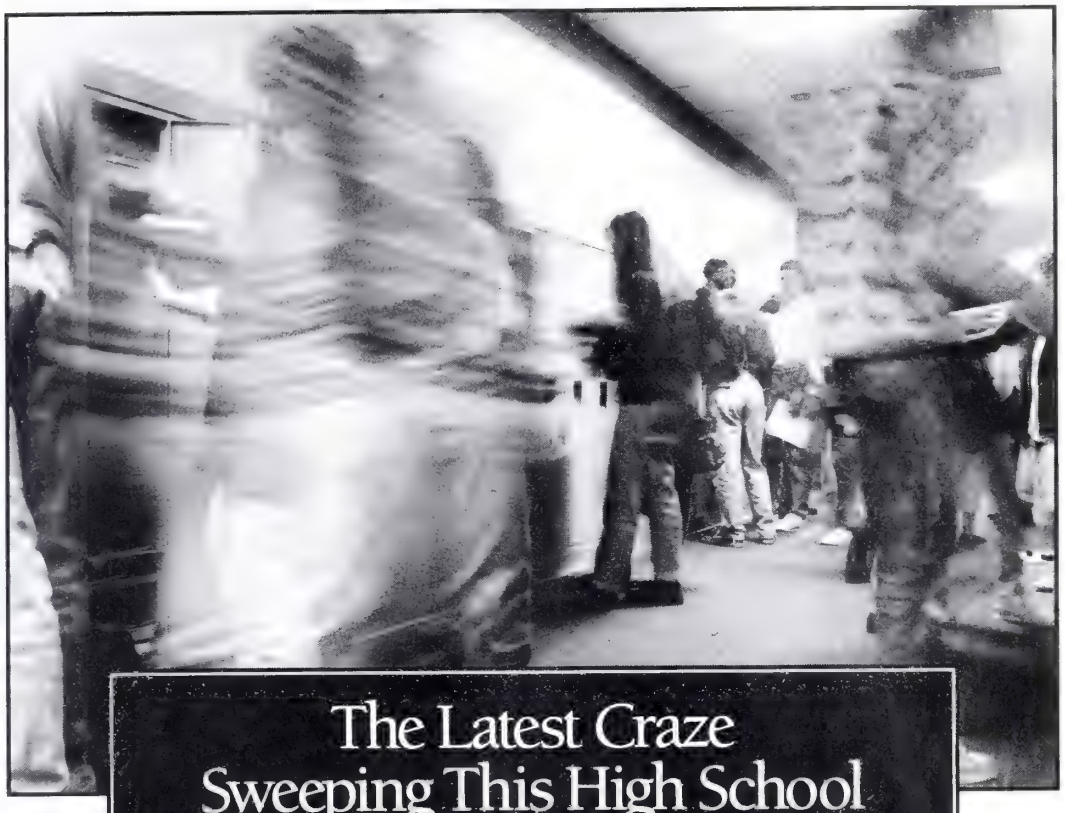

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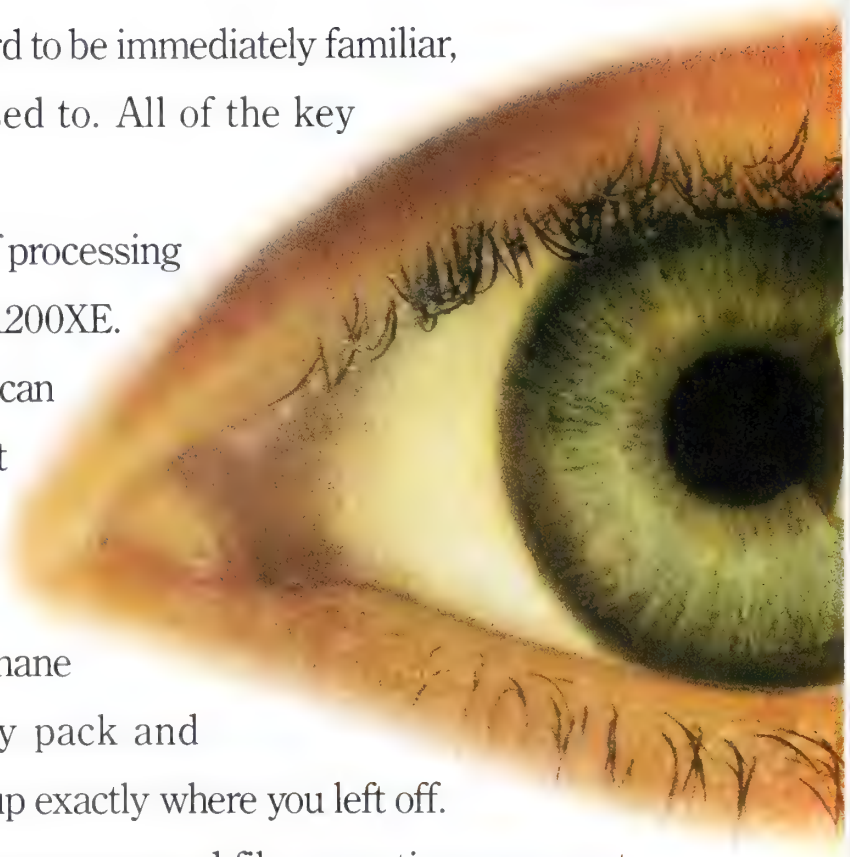

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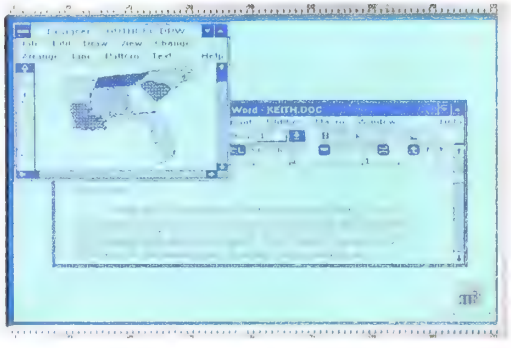

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spends so little on research and development as the educational system in determining what investments will raise quality, increase productivity, and control costs. No other sector has achieved significant breakthroughs in the redesign of work processes without exploiting information technology.

The popular literature is filled with the promises that computers offer to overworked teachers and unproductive students. Yet, many reformers point to the fact that we now have computers in the classroom, but still have declining results in student performance.

The most successful American businesses have learned a deceptively simple lesson during the Information Age: Technology alone will not yield competitive advantage. A new paradigm is essential if the promise of technology in education is to be fulfilled.

'First Time Right' Design

Information technology can indeed deliver valuable benefits for our schools. Student workstations can provide more personalized instruction. Intellectually exciting courseware can be designed to provide students with valuable feedback that teachers are now often too busy to provide. Access to wide-ranging databases can yield "just-in-time" information. There is even the potential for moving from an attendance-based school system to one that focuses on learning and performance. But the real promise lies in "first time right" — designing the processes of instruction to ensure that all students are able to meet standards expected of them at each stage of the education process.

Teacher productivity, as well, can benefit from a new educational information age. By taking the role of the learning director, teachers can coordinate personal tutoring at the workstation, monitor student progress, and provide greater personalized instruction. Armed with automated record-keeping and curriculum materials, teachers will be free to teach rather than having to grapple with the administrative tasks of managing materials inventories and other routine tasks.

Student workstations provide more personalized instruction.

Bringing the educational system into the Information Age requires much more than simply computers in the classroom. A reform effort of this magnitude requires an approach based on research — knowledge of what computers do best, and redesign — improvement of the total process of education to exploit technology. After the basics of research and redesign are completed we must vigorously pursue our reform agenda.

Fresh Approaches

American businesses have led the way in adapting to changing competitive conditions. That experience in shifting paradigms — in approaching challenges in fresh ways — must be applied in addressing the "three Rs" of educational reform.

Making the paradigm shift required to bring the benefits of the Information Age to the educational system is not easy. But without the support of American business, it is impossible.

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Changing the System

Teachers on the Firing Line

BY DONNA RHODES

How do we teach students the skills they need to be productive and happy in a technological society? Not by using only traditional teaching tools or by following role models that prepared students of the past. The answer lies in using the technology tools of the day and developing new teacher roles — at least that is the experience of the Christa McAuliffe Educators.

The educators are part of the Christa McAuliffe Institute for Educational Pioneering, a program designed by the National Foundation for the Improvement of Education (NFIE) in Washington, D.C., and dedicated to the pioneering spirit of Christa McAuliffe, the teacher-astronaut who lost her life in the Challenger shuttle spacecraft tragedy.

Each year, NFIE selects five teachers who are not confined to traditional classroom teaching styles. To give students the skills needed to secure productive places in the 21st century, these teacher-leaders are using not only chalk, textbooks, and overhead video projectors as teaching tools, but also state-of-the-art technologies including computers, telecommunication devices, laser discs, and HyperCard screens. Just as professionals in other sectors of society used technology systems to transform the nation's ability to access, synthesize, and apply information to solve problems, teacher-leaders across the country are using them to transform student learning environments in electronic schools.

The McAuliffe Educators do not believe technology is meant to replace the teacher in the classroom. Rather, they focus on what technology enables teachers and students to do. "The idea is to get students to realize the power and possibilities of the electronic machine," they explain.

As the Christa McAuliffe Educators bring technology into their

classrooms, they assume five fundamental roles:

- *Seekers* explore the environments and tools other teachers have created to teach successfully.
- *Long-range planners* determine the skills students must acquire to contribute to society and business as productive adults, and how to best equip them for creative, competitive contribution.
- *Collaborators* work with leading educators, business leaders, and government officials to expand the resources of information and experience available to students.
- *Researchers* make decisions for the classroom based on solid research (not what "seems right"), record knowledge, and institute findings for succeeding teachers.
- *Mentors/mentees* educate (and learn from) students, teachers, education administrators, business leaders, and the community.

"Traditionally teachers have been dictators, lecturers, and disseminators of information," say the Christa McAuliffe Educators. When they began teaching eight to 30 years ago, "The teacher did as told, followed mandates from the top, and stayed within the four walls of the classroom," says teacher Lyn Can of Daly City, Calif. "We asked students to open textbooks and progress according to the lessons prescribed in the teacher's manual."

Concerned that the nation's schools are neither keeping up with technological advancements nor preparing students for a rapidly shrinking world and global economy, teachers like the Christa McAuliffe Educators are taking unheralded risks in schools throughout the United States, rejecting the inefficiencies of the status quo to give their students an education for the modern world. The goal is to enrich their personal lives and, at the same time, give American business the competitive lift it so desperately needs.

The educators call themselves managers of instruction. "Our job is to help students access, synthesize and apply knowledge. My classroom is no longer contained within four walls. The classroom is the world," says McAuliffe Educator Gail Morse of Huntersville, N.C. "My job is to help students develop skills so they can become productive workers in the 21st century, and — what is more — communicate with people."

Morse's classroom at J.M. Alexander Junior High School in Mooresville, N.C., does not look like "the world." Yet her students can connect with most of it through satellite technology. And the technology is not unusual: computers and a laser-disc system. However, by creating a class

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room where students casually hook on-line with Barrow, Alaska, to research the fate of migrating whales, Morse is unusual: She's on the firing line of technology and thrilled by it all.

As *seeker*, Morse examined social lifestyles, businesses, university research, and political communities to determine trends that had classroom applications. As *long-range planner*, Morse decided students should learn to research, constantly collecting and using information. A *researcher* herself, Morse sifted carefully through magazines to find available technology, who uses it, and how it can be exploited to the advantage of her students. She discovered a laser-disc player in her research and found a University of North Carolina professor who revealed its vast potential using the rich curriculum resources available on laser discs. She was now the "*mentee*."

But she was also a successful *collaborator*, organizing vast quantities of information, including slides, movies, text and audio materials into an integrated classroom curriculum.

Moreover, 74% of her students are on the honor roll; attendance is up, discipline is better; writing quality has improved.

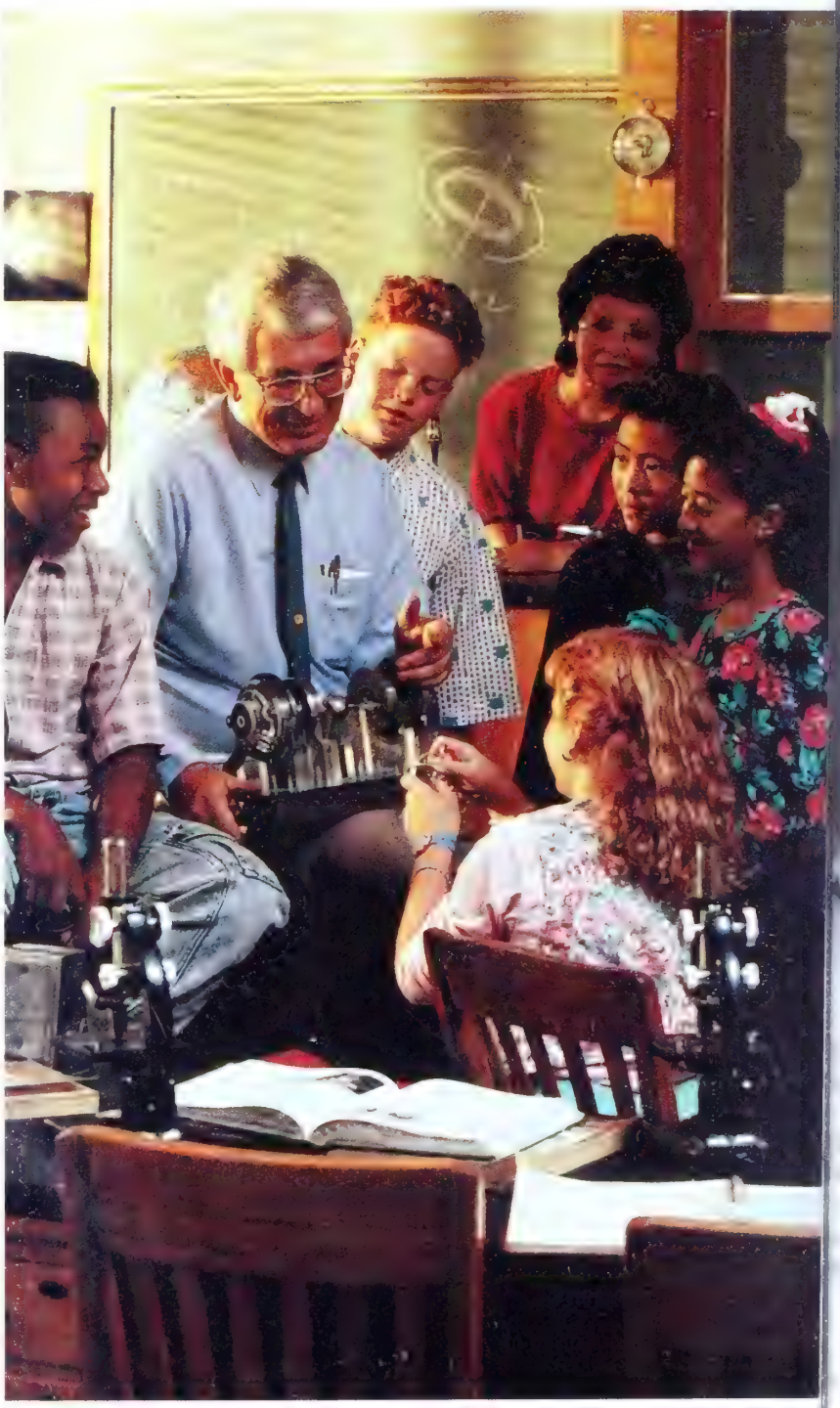
In Norfolk, Va., McAuliffe Educator Ron Fortunato's role as a teacher led to a grant from NASA to create a science research lab. Computers, robots, a water tank, drill presses, lathes, a conference table, and technical drawings of space-shuttle components created a learning environment that piqued students' interest in creative problem-solving.

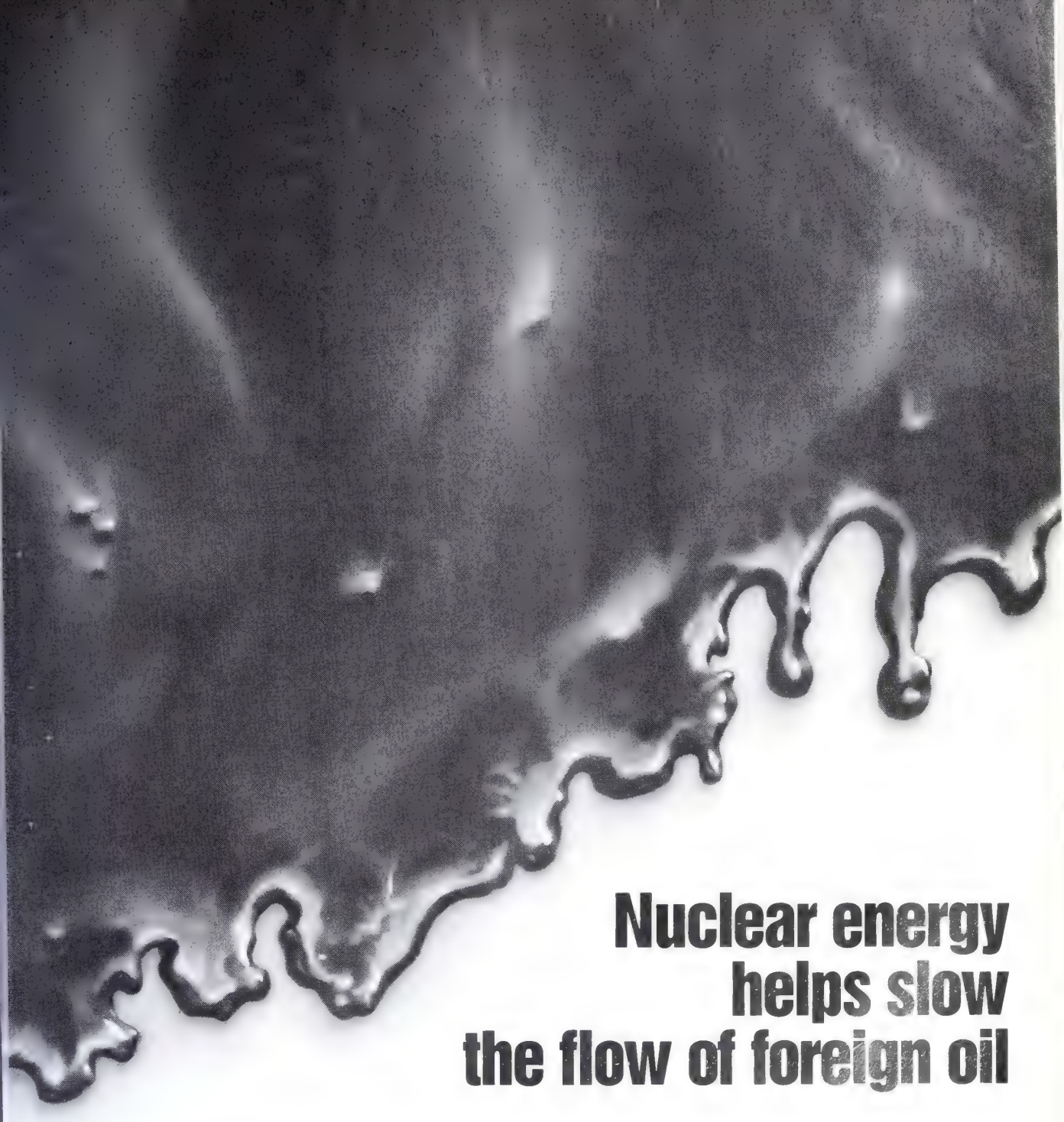
Fortunato didn't tell students what to do in the science project. They ran the lab and the technological equipment themselves, "because that's the way it works in the real world," says Fortunato, echoing the conventional wisdom of many businesses today. "Students could turn to NASA personnel who served as resources, and they were free to learn from their own mistakes and decisions," he said.

Computers are the focal point of sixth-grade students clustered in groups of three in Jeff Holte's technology projects in Eden Prairie, Minn. Students learn about their community and a different generation in Eden Prairie, using computers and modems to communicate with senior citizens living in a nearby nursing home.

The Christa McAuliffe Educators are but a few of the teachers throughout the country who are exploring, redefining, and, indeed, revolutionizing the art of teaching through technology. They measure student success not by how well a student performs on paper-and-pencil tests, but by how well he is able to pose problems, seek solutions, take risks and explore options. These educators are on the firing line of the technology revolution in education. Their success is business's success and the success of electronic schools into the 21st century.

Donna Rhodes is executive director of the National Foundation for the Improvement of Education.





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Changing the System

Images of Potential: From Vision to Reality

BY KIM BUERRY, BRUCE HASLAN, AND NETTIE LEGTERS

Imagine a learning environment that takes full advantage of technology to support education. That was on the mind of the National Foundation for the Improvement of Education (NFIE) in 1989 when it invited 38 professionals, including teachers, architects, business leaders, hardware and software producers, educational researchers, and futurists to do just that. Their discussions at the Wingspread Conference Center in Racine, Wis., resulted in "Images of Potential," a cutting-edge report containing six "scenarios" of learning environments that are dramatically different from what we know today. Of the six, we selected "Diana's" experience at an urban/suburban high school as an example.)

Diana's day begins with a period of introspection. This time is allotted for the students to reflect on past, current, or future activities and to clear their minds.

Diana then begins the knowledge portion of her day. She attends multidisciplinary classes, where multiple subjects are taught based on a theme. This week, the students discovered several artifacts in the northwest section of the school grounds. They began an archeological dig site and uncovered several peculiar objects.

Diana's social sciences class is using telecommunications to search databases on topics and artifacts they have discovered. She sends a message through her NEC laptop computer at her student workstation to a student in the foreign-language class to help translate a script scrawled on one of the objects. She then calls up the surrogate field-trip study of Cancun on her Pioneer LaserDisc player. She travels through the ruins, choosing many different paths.

Diana's math class is designing a three-dimensional computer graphics

imulation of the dig site. Her class is orking closely with the science class determine what dating techniques hould be used to ascertain the site's eological formations. After incorporating the appropriate physical and hemical characteristics into the simulator, they will be ble to manipulate ie environment.

In language-arts lass, Diana is reparing newspaer reports on recent 'ass activities and nding her draft to ie local newspaper for publication. his afternoon, her class is conducting n interactive videoconference with udents in the Soviet Union and La az, Bolivia, to discuss their latest nds. Other classmates are putting nishing touches on the community wsletter . . . the deadline is only two ours away.

In her arts and music class, Diana is eating a composite painting from a agment of a sculpture that was found. the music section, students are comosing original synthesized music pressing their emotions about the lture they are discovering. The digized music will be overlaid on the deo documentary being developed the language-arts class.

Following lunch, Diana attends inking-skills class, in which special tivities are designed to develop higherder thinking skills (creative problemlving, communications). Diana has en thinking about the fragile artifact at she broke while picking it out of the g site. She has decided to design a nd tool to dig around the edges of an ject and support its structure. She is ing a 3D simulator to test her tool on jects of different strengths, so that she n optimize her design.

Diana shapes her ideas and eams into reality in building class, here she is constructing her tool.

Diana's social-sciences teacher has viewed her interactive videodisc perience of Cancun using the pathcking tool built into the program. The th tracker helped her teacher decide at Diana needs experience in some k-taking activities, and she advised ana's other teachers of her progress.

The Realm of the Possible

The learning environment described above, with few exceptions, bears little resemblance to today's typical classroom. It strays from reality in several fundamental ways.

> ***"Despite its presence in much of the teaching process, technology remains mostly transparent and nonintrusive."***

The most obvious difference is the level of student activity; students are active learners. In some cases, they are active teachers of other students. The scope of their learning is broader.

The differences translate to teachers. Like their students, teachers are more active. While they still engage in traditional behavior, they now do so to a lesser extent. They are portrayed as managers of the learning environment; facilitators of the learning process.

In this scenario, there is more information available to teachers. There is more content, although teachers are less concerned about the boundaries of content areas. There is more information about the students — a valuable commodity for determining when mid-course corrections in the learning process are needed. The examination of Diana's "field trip" to Cancun is a striking example of how teachers can not only diagnose student weaknesses or problems but can immediately develop and share solutions.

And there is the important element of technology. In this scenario, technology enhances learning: It relocates the learning environment so that it is more accessible to more students; it offers systems for gathering and storing information for others to reference at any time. Despite its presence in much of the teaching process, technology remains mostly transparent and nonintrusive. In short, technology does not drive the system; the opposite is true.

From Vision to Reality

Technology exists to make the preceding scenario possible. In the past five years there has been a significant increase in hardware and software available to schools. In 1988, the U.S. Office of Technology Assessment estimated that there are between 1.2 million and 1.7 million computers in

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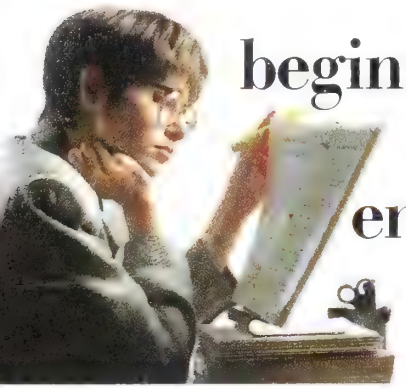

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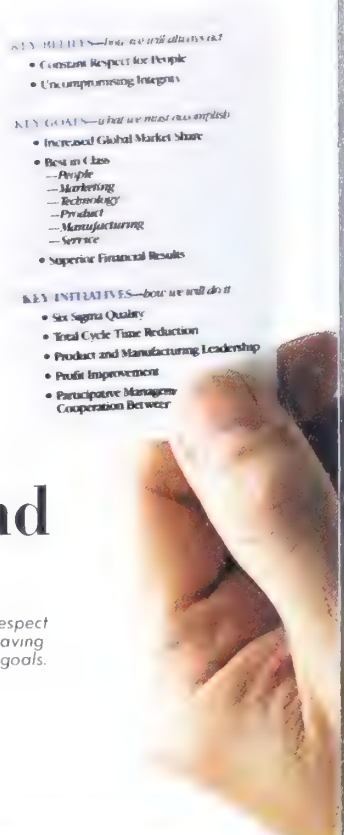

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Building On Beliefs

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the nation's public schools. Ninety percent of U.S. schools have at least one videocassette recorder, and many have access to cable or satellite transmissions.

In the last two years, the amount of technology equipment in our schools has been on the rise. And state and local school planners along with education-program developers routinely talk about putting several hundred computers in every school. (Many teachers, however, would argue that that's the problem — it's just talk.)

So Close, Yet So Far

While it has tremendous potential, technology has yet to be integrated into education in a significant way. Students and teachers spend little more than an hour or so a week using computers. Despite their availability, televised, instructional programs aren't yet a standard part of the school day — except in some rural areas.

Is there reason to be discouraged? Donna Rhodes, executive director of NFIE, thinks not. After reviewing more than 150 teacher reports on

Computer Report Card

From the back office to the home office to the factory floor, the use of technology in business has followed a fairly consistent pattern: initial resistance followed by rave reviews. In education, unencumbered by competitive pressures, the process has taken longer but the results appear to be similar: Teachers, after years of resistance, increasingly see technology as an important element in school reform.

In a July 1989 nationwide survey of precollegiate teachers, conducted by the Wirthlin Group for IBM, teachers agreed that the use of computers in the classroom is a positive development in the learning process.

The study, entitled "The Computer Report Card: How Teachers Grade Computers in the Classroom," reported the results of 1,100 telephone interviews; among its many findings are the following:

Drop-out Rates

- A majority of the teachers surveyed (64%) indicated that computer use helped reduce the drop-out rate by stimulating at-risk students.

Literacy

- Most teachers (82%) found that the use of computer-based reading and writing programs in the early grades helped reduce the illiteracy rate.
- An overwhelming 91% of all teachers polled said that computers were effective tools to help students develop basic reading and writing skills. And 60% thought that computers were not used frequently enough for that purpose.

Student Motivation and Skill Development

- Four out of five teachers who used computers for instruction (82%) said computer use had increased their students' motivation to learn.
- According to 86% of those surveyed, computer use aided student problem-solving ability.
- Even more teachers (87%) found that computer use boosted students' self-confidence.
- And 86% thought that computers helped them unlock the creative potential of students.

College Preparedness

- Three out of four teachers polled (74%) asserted that computer-illiterate students were not adequately prepared for college.

Equity of Access

- Nine out of 10 (90%) found lack of computer access to be a special learning disadvantage for students from less-affluent schools.

Curriculum and Instruction

- When asked in which subject areas computer use was most effective, the teachers' most frequent response was math (49%), followed by reading, writing, or language arts (24%). More than one-third of the teachers (37%) volunteered that computers could be used most effectively in "all subjects."
- Overall, three out of four teachers (75%) said that computers allowed them to spend more one-on-one time with students.
- Nearly three-quarters (74%) found that computer use in the classroom allowed them to be more creative in their instruction.

Discipline, Attendance Problems

- Three out of five teachers (62%) agreed that computers could help reduce classroom disciplinary problems.
- More than half (56%) agreed that computers could help reduce absenteeism by making classroom study more interesting.

Alcohol and Drug Abuse

- Most teachers (70%) agreed that software incorporating the high-tech culture of today's students, such as interactive video and audio systems, could make it easier to reach students with important social messages about alcohol, drugs, and sexuality.

Parental Involvement

- According to 63% of the teacher sample, computers used in the classroom could stimulate greater parental involvement.

Impact of Computers on Education

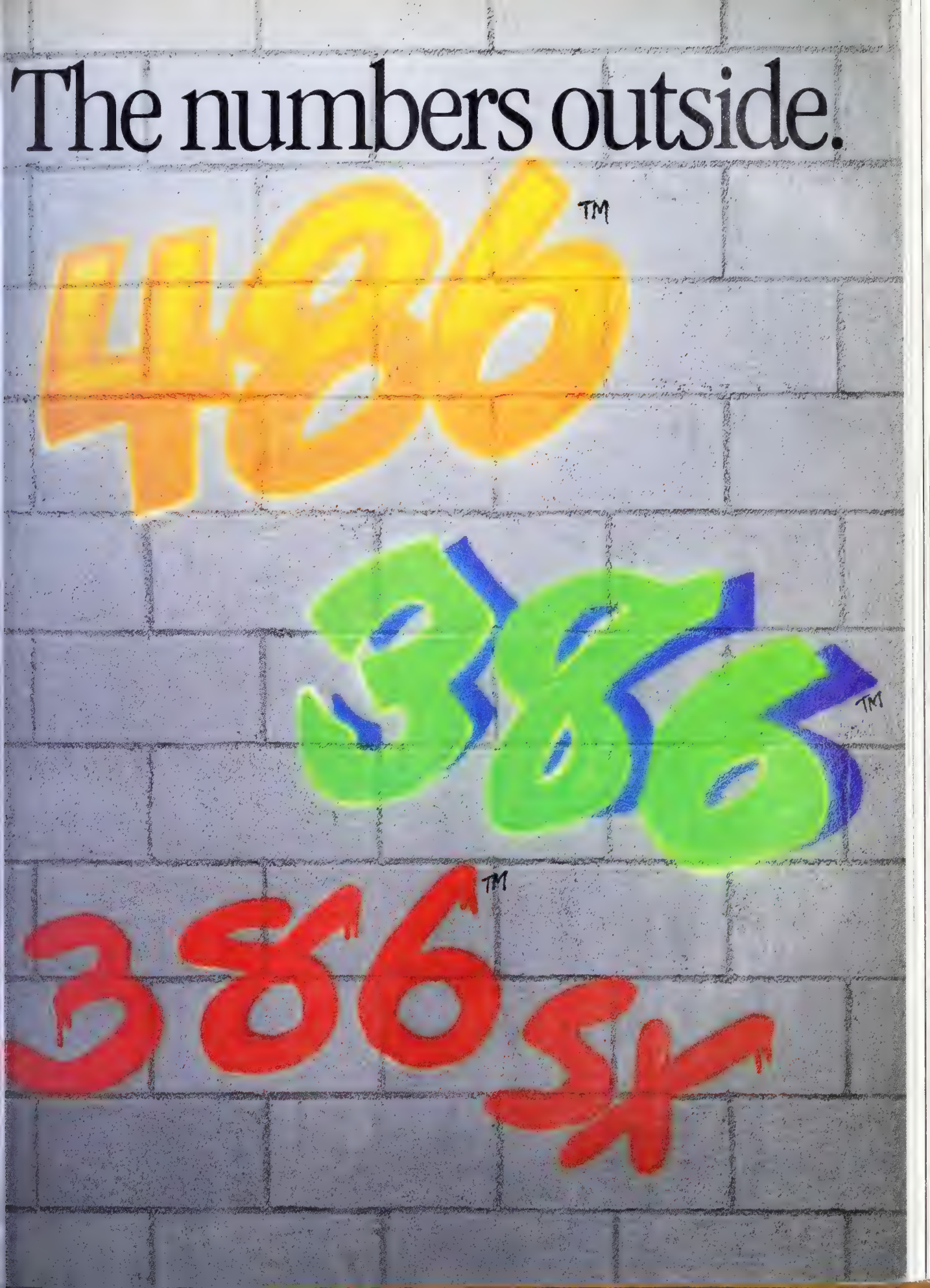
- Overall, 85% of teachers interviewed thought computers used in the classroom had a positive impact on the quality of American education.
- Many teachers (68%) cited lack of resources (money, computers, software, or space) as one of the greatest obstacles to more effective use of computers. More than one-third (38%) identified inadequate training or lack of computer experience as a primary obstacle.
- Three out of four teachers (72%) in computer-using school districts indicated that computers were used effectively for instruction. However, only 59% of teachers thought computers were used effectively in American education generally, while 31% believed computers were not used effectively.
- Only one in 10 teachers thought that computers were a fad and that they distracted educators from "the basics."

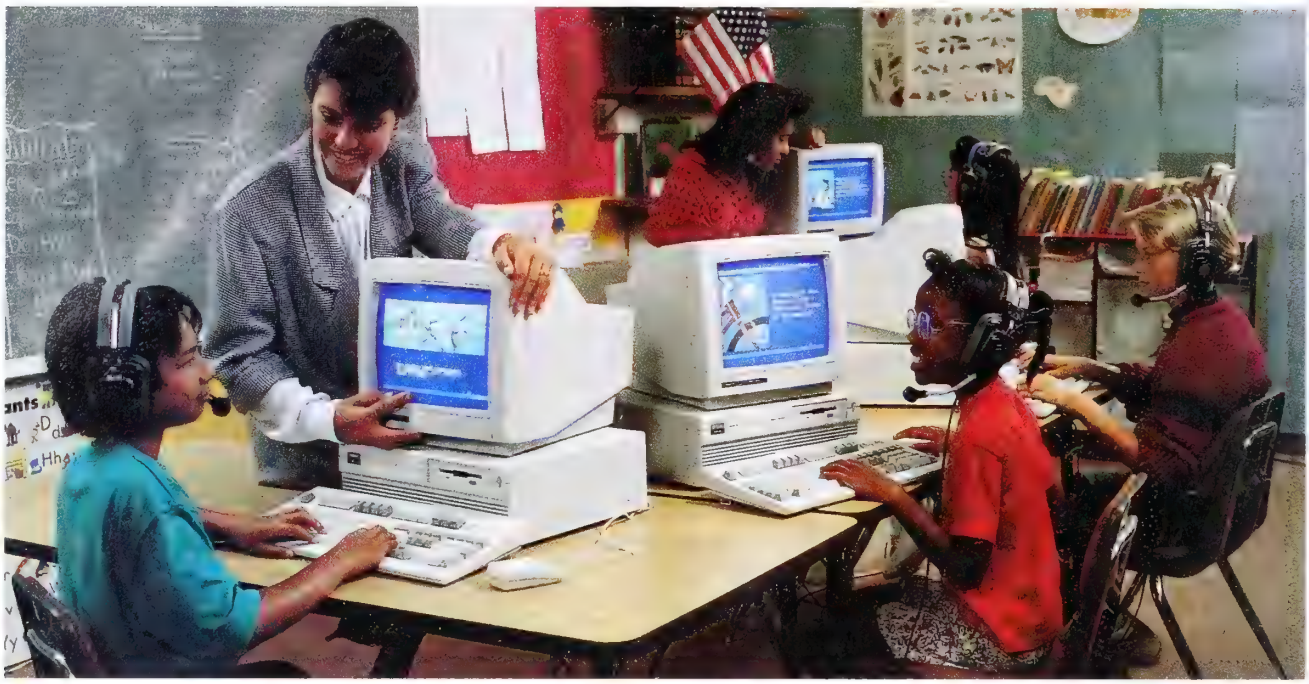
Computers, Teacher Training, and the Teaching Profession

- Computer skills will become increasingly important in terms of gaining employment in education, according to 72% of the teachers.
- More than half (59%) agreed that "most teachers who are using computers for instruction are inadequately trained for their use."
- Half the teachers (52%) thought their students were more computer literate than they were.
- Finally, more than half (61%) of all teachers surveyed think that more widespread use of computers in education can attract others to the teaching profession.

— J.J.H.

The numbers outside.





Teachers can monitor and manage students' progress with computer programs from Jostens Learning Corp.

their efforts to improve instruction, Rhodes says: "There is evidence of a substantial amount of teacher innovation with technology. I'm impressed by the willingness of teachers to take risks and assume heroic leadership roles key to advancing the technology use in their schools and communities."

Three prime examples are cited by Rhodes:

■ *Anoka Senior High School in Anoka, Minn.:* William Mittlefehldt is using the computer laboratory in his school to link students to the same databases used by Minnesota state legislators. Students use the databases to identify policy-related problems and generate solutions.

By assigning students with different cognitive styles to work together, Mittlefehldt enriches the learning situation. In the process, students learn problem-solving, consensus-building, and communications skills. The learning experience is capped with a special session were students present their findings to state legislators.

■ *Juneau-Douglas High School in Alaska*: Nancy Seamount adds a dramatic international dimension to her teaching: World 2000. A joint U.S.-USSR Health and Telecommunications Project linking teachers and students in Alaska and Moscow, World 2000 provides an opportunity for educational exchanges about major international health issues. Students gather and process large volumes of information and opinion and sort through it together — via teleconferencing. Students are beginning to view themselves as citizens of the world as well as developing marketable communications skills.

■ *T. DeWitt Taylor Middle High School in Pierson, Fla.:* Ronald Mathews teaches agriscience in the "Fern Capital of the World." Ninety percent of the world's leatherleaf ferns, a staple in floral arrangements, is grown there. Concerned about declining enrollment in agriculture classes and the problems facing fern growers, Mathews set out to address both issues. Working with scientists from the College of Agriculture at the University of Florida, he established a fern research station using some of the latest technology. The results? Enrollment in those classes has doubled and the school day has been extended due to student demand. Post-high school employment and scholarships for the program's graduates have soared.

"Nearly 75% of teachers polled found that computer use in the classroom allowed them to be more creative and spend more one-on-one time with students."

These examples feed Rhodes' optimism. "Teachers can and should be leaders," she says. They are in an excellent position to determine what needs to be done to improve education for all students. But there must be opportunities for teachers to be involved in important decisions at their schools; for them to explore with technology; and to share the results of their exploration with their colleagues."

What concerns Rhodes most is that many major educational restructuring efforts in either the implementation or fruition stages are not linked to the use of technology.

With the few exceptions of states such as California, Florida, New York, and Texas, she explains, state and local technology development programs are separate from reform activities and run parallel to them. She believes that trend has to be reversed if the electronic schools revolution is to succeed.

Kim Buerry, Bruce Haslan, and Nettie Legters are consultants to the NFIE.

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Education Marketplace

School Hardware: The Four Tops

BY JUDY SALPETER

Ask a group of elementary or secondary school educators whom they look to when shopping for computers, and they're likely to name three or four companies: Apple, IBM, Tandy, and Commodore.

The Apple II, introduced in 1977, was adopted so enthusiastically by computing pioneers in the schools that by the mid-1980s, Apple was the leader in the field. During the past few years, however, the company has faced a major challenge: how to nudge educators over to the more powerful — and more expensive — Macintosh without being perceived as deserting the Apple II, with its huge following and enormous software base. Apple clearly hopes that its new, lower-cost Macs (the Mac Classic, Mac LC, and Mac IIsi), which offer optional color and Apple II emulation (both features that educators have been demanding), will help win back the K-12 market share the company has lost in recent years.

IBM's share continues to grow. IBM introduced its first personal computer in 1981 and followed up in 1983 with the PCjr, targeted largely at the education market. Although this model was pulled off the market in less than two years, IBM remained serious about education, and formed

IBM's Writing to Read™ encourages kindergartners and first-graders to actively participate in their own learning process.

the IBM Education Systems division in 1985 to focus on K-12 marketing. IBM has had success over the years with such comprehensive hardware/software packages as Writing to Read, a total K-1 language-arts curriculum. In addition to developing its own courseware, IBM is also working closely with a number of third-party publishers who are developing software for its PS/2 line.

In the K-12 market "IBM compatible" is practically synonymous with Tandy. One of the original players on the microcomputer scene, Tandy/Radio Shack made early inroads into the K-12 market with the TRS-80 computer, introduced the same year as the original Apple II. In 1984 Tandy introduced its first MS-DOS computer. Since then, the company has taken an active role in encouraging both software publishers and educators to switch over to the MS-DOS platform. A 1987 Tandy ad campaign focusing on MS-DOS computers as "the right tools" to prepare students for the future echoed a community-based sentiment that has helped drive educational sales of both Tandy and IBM machines in recent years.

And finally, there's Commodore. Another early entrant into the world of microcomputers, Commodore experienced considerable success a decade ago with its PET computer and, later, with the Commodore 64. Now, after several years of labored inactivity, Commodore is attempting a comeback. The company's new educational marketing group, headed by executives with impressive credentials in the K-12 market, is working hard to sell schools on the wonders of the Amiga — an inexpensive, colorful machine with tremendous potential for education. Whether the strengths of the Amiga will be enough to convince educators to switch to yet another, incompatible standard (and one with relatively few software titles) remains to be seen. In the meantime, Commodore is hedging its bets by offering MS-DOS compatibility in the form of an add-on card for the Amiga.

To remain competitive in the next decade, each of these hardware leaders must focus on the changing problems and needs of education. Three key areas the computer industry will need to address are teacher empowerment, connectivity and multimedia.

Portable computers accompany students on field trips.

A Computer for the Teacher

In the national move to restructure our schools, a central theme has been "teacher empowerment" — giving teachers the tools and the decision-making power to shape what happens in their classrooms, schools, and districts. Not until teachers have had the opportunity to experience for themselves the power of the computer to make everyday tasks such as record-keeping, grading, and letter-writing easier can they be expected to welcome computers into their classrooms as standard teaching tools.

> ***"Basing educational strategies on students' specific needs and learning styles – that is always right."***
>
> BERNARD R. GIFFORD
> Vice President Education
> Apple Computer Inc.

Apple, IBM, Tandy, and Commodore all offer "teacher buy" programs, which allow teachers to purchase computers for personal use at highly discounted prices. In addition, the National Education Association, one of the nation's largest teachers' unions, has worked with both Apple and IBM to "bundle" low-cost computers for NEA members under the name NEA EdStar. The bundled products each include a computer (a PS/1 or a Macintosh) and a variety of software packages selected for their usefulness as teacher productivity tools.

Although Tandy does not have an EdStar machine, it offers teachers something that none of the other leading players do: An extensive line of laptop computers. Laptops are not yet widely used in elementary and secondary schools, but as teachers become more dependent on computers for daily use, and as pricing becomes more competitive, this is

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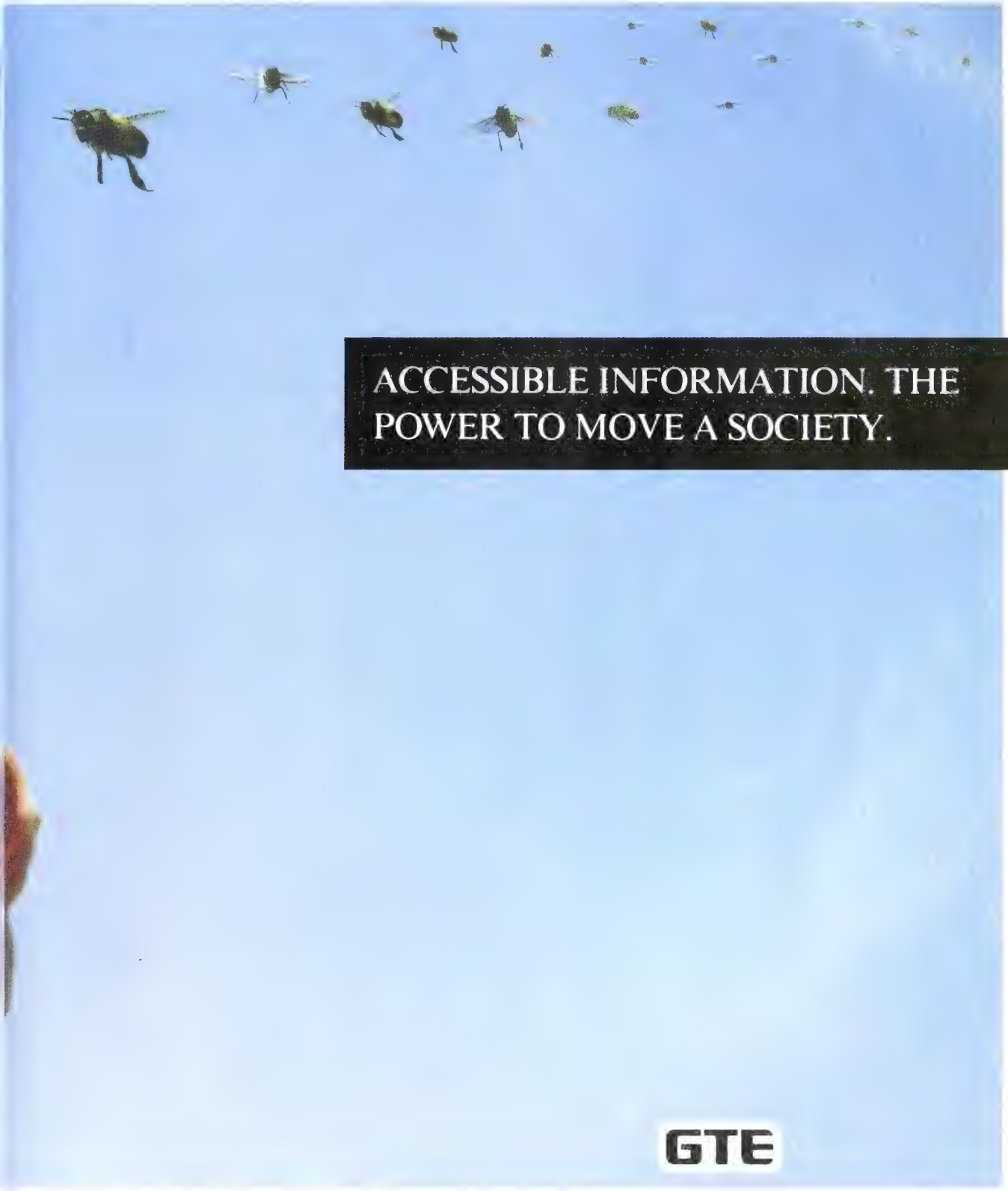

likely to change. Tandy plans to offer laptops as part of its teacher discount program starting this spring.

In addition to making computers available to teachers, there is a need for comprehensive and ongoing teacher training in the uses of technology in the classroom. Both IBM and Apple are involved in national grant programs to address this issue. IBM is placing $15 million worth of networked hardware and software in education colleges to help train future teachers in the use of technology and establish these colleges as resources for local school districts. Apple's Christopher Columbus Consortium, which comprises some 30 teams — each consisting of a K-12 school or district and a university school of education — focuses on research. The consortium will share its findings about effective teacher-training methods in a variety of forums.

In addition, all four companies are involved in a number of other marketing activities aimed at supporting, honoring, and winning the hearts of the nation's teachers. Each company participates in a variety of grant programs to schools; sponsors contests or other programs to honor outstanding teachers; and works with its own dealers and/or sales staff to provide training and support to educational customers.

A kindergarten practices phonemes (letter/sound combinations) at IBM's Writing to Read™ center.

Making Connections

Networking, the ability to connect computers together within a school building and throughout a school district, is increasingly important to educators and school executives. Interest in networking goes back to the mid-1980s, when many schools grouped their computers into central computer labs. The idea of connecting the lab computers using a local area network (LAN) was appealing because it allowed users to share printers and eliminated the need for a lot of floppy-disk swapping and storage. However, networking did not become widespread until later in the decade, when concerns about accountability — combined with the availability of federal funds for "at-risk" students — led administrators in many school districts to take a serious look at Integrated Learning Systems (ILSs), which are total curriculum packages delivered over a network.

Most of the networked labs in schools today, especially those set up to run ILSs, are equipped with MS-DOS machines. Both Tandy and IBM have taken an active role in networking. Tandy was promoting networks long before it switched over to MS-DOS; in the early days, Tandy offered its own network to link different Tandy/Radio Shack models. In recent years, Tandy has switched to an industry-standard network and has worked closely with third-party publishers to encourage them to create MS-DOS software that will run on the network using Tandy's own SchoolMate management system. Tandy also played a crucial role in bringing Integrated Learning Systems to the attention of educators when it teamed up with the ILS company, Jostens Learning Corp.

Unlike Tandy and IBM, whose computers are networked using third-party systems and special adapter cards placed inside each computer, Apple had created its own network, building basic networking capabilities into its own Macintosh

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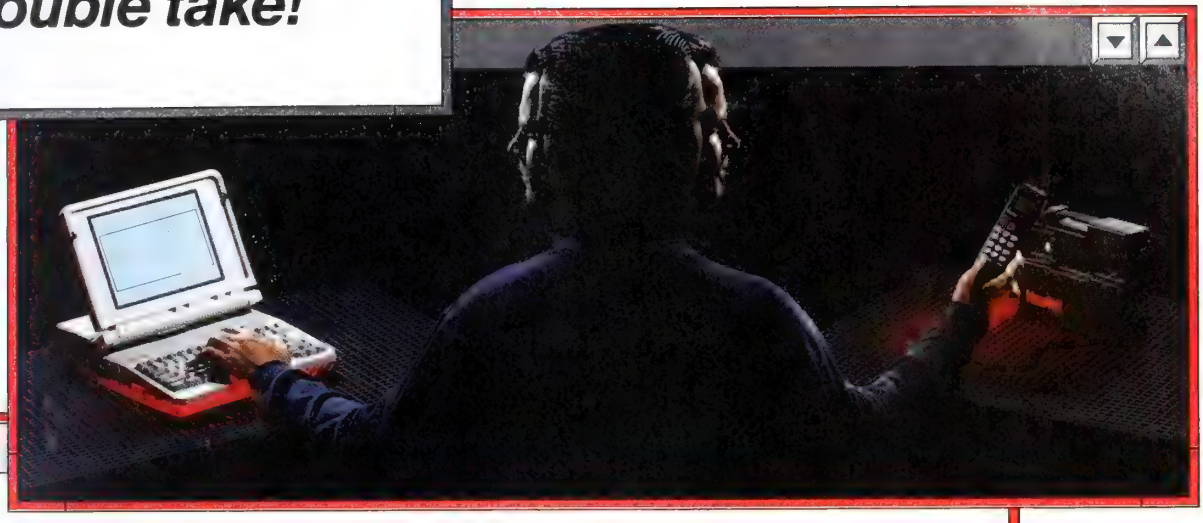

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and Apple IIGS computers. These built-in features make it easy and cost-effective for customers to hook computers together for tasks such as exchanging files and sharing printers. However, ILSs and other systems that support many students simultaneously generally require a network much faster than Apple's. In response to this problem, Apple and a number of third party manufacturers now offer adapters that allow Macintosh and Apple II users to connect to faster third party networks. Several ILS companies have developed new Macintosh versions of their programs to work with the faster networks.

Commodore is even more of a newcomer to networking. Earlier this year the company announced networking cards (due to ship next month) that will make it possible for Amiga computers to run on a network. Vice President of Marketing C. Lloyd Mahaffey expects networking to enhance the appeal of the Amiga in an office or campus environment. Clearly, it will be a plus in the K-12 market as well.

"Educators have known for years that students learn best when they are provided with multi-sensory experiences."

Although Integrated Learning Systems have driven the educational networking market in recent years, they are not the only reason for schools to network. In fact, even educators who oppose ILSs on the grounds that they diminish teacher authority and threaten the existence of smaller software companies, tend to agree that schools of the future will be equipped with networked computers. These computers will probably not be centered in labs but instead distributed throughout the school and used for everything from school district management and administration to instruction to collaborative projects between teachers and students in different classrooms. The success of each educational computer manufacturer will depend, at least in part, on its response to the networking demands of the next decade.

Teachers can now combine voice, music, text, graphics and video to give their students a multimedia experience.

The Multimedia Experience

Educators have known for years that students learn best when they are provided with multi-sensory experiences. Now that it is possible to combine realistic voice, music, text, graphics and video into a single, interactive package, it's only natural that teachers and administrators should jump at the chance to provide this sort of multimedia experience to their students. Indeed, all four companies have firmly committed to interactive multimedia.

Apple has been visible in this area during the past two years. The company's Multimedia Lab has worked closely with a number of film producers, software developers, and schools to produce "design examples" that demonstrate the potential of multimedia in education. Several of these examples have been expanded into commercial products, such as GTV, a videodisc-based geography program with an MTV flavor (produced by LucasFilm and National Geographic); and *Animal Pathfinders* which allows students to explore animal migration using footage from the NOVA television show (developed by WGBH and Peace River Films and published by Scholastic, Inc.).

While such examples feature the Macintosh (connected to videodisc and a separate video monitor) running multimedia applications, Apple stepped into the lead in another area as well: "do-it-yourself" multimedia. Although not all educators have the time or energy to develop their own programs or to help students create multimedia presentations, a number of pioneers have enthusiastically adopted HyperCard as a tool for such projects. Apple's strategy of bundling HyperCard with every Macintosh as well as the company's active role in publicizing educators' successes with it, have contributed to interest in do-it-yourself multimedia on the Mac.

Commodore also has strengths in multimedia. In fact, the company's

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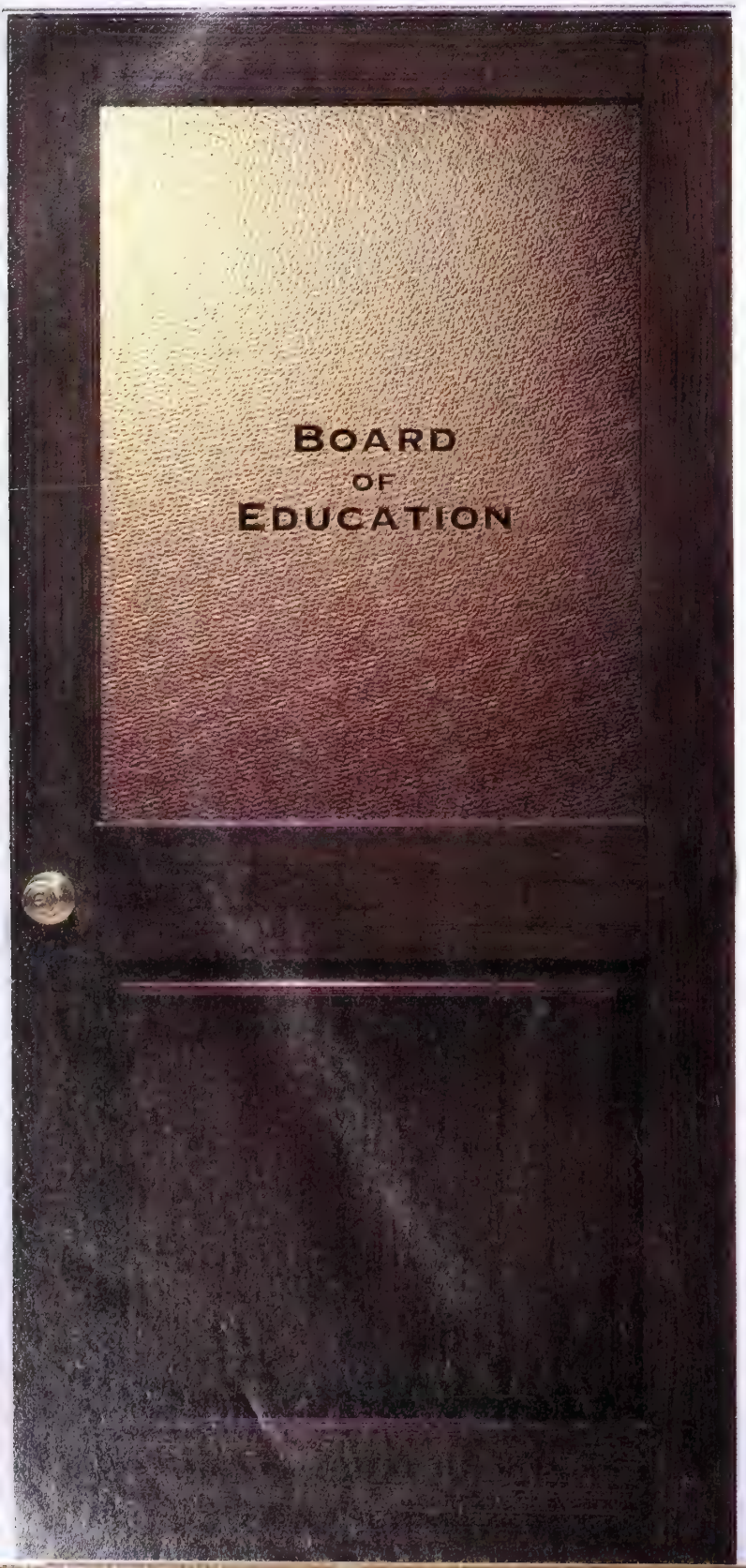

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TECHNOLOGICAL HORIZONS IN EDUCATION
JOURNAL

Commodore's videodisc-based program incorporates primary source material to create a vivid social studies teaching tool.

greatest chance to win back the hearts of educators undoubtedly lies in the highly regarded multimedia capabilities of the Amiga. Commodore's new hypermedia tool, AmigaVision, makes it easy to create multimedia programs that incorporate output from any of the outstanding graphics, animation, video, and other tool packages already available for the Amiga.

Recognizing, however, that most educators are looking not for tools but for effective, ready-made, applications to use with their students, Commodore has worked with Scholastic to produce a videodisc-based program for the social studies classroom. *Struggles for Justice*, which takes advantage of the Amiga's ability to combine graphics and computer output on a single screen (with the help of an inexpensive add-on card), uses historical footage, interviews, photographics, text, and illustrations to portray the struggles of several different ethnic groups in American history. If other powerful programs of this sort are forthcoming, schools that have never before considered Amiga purchases may finally be tempted to take the plunge.

IBM has a longer and more widely varied history in multimedia than any of the other companies. InfoWindow, which mixes video and computer output on a colorful, touch-sensitive screen, has been widely used in industrial-training and adult-literacy programs for years. Other applications, including Tip-Dart, a drug and alcohol awareness program, and TLTG Physical Science, a comprehensive physics course developed for the State of Texas, have made their way into many K-12 classrooms in recent years.

Now, IBM is offering developers and end-users several other multimedia options. For example, a school interested in purchasing Tip-Dart or its sequel, which focuses on AIDS education, now has three choices: the InfoWindow version; a less expensive version that runs on one of the higher-end PS/2 computer and a separate video monitor. The two-screen versions of the Tip programs, as well as some exciting new multimedia applications from Turner Broadcasting and National Geographic, were created using IBM's LinkWay hypermedia tool, which was designed especially for the entry-level PS/2 machines most common in schools. LinkWay can also be used by teachers and students to create their own multimedia presentations.

Of the four companies, Tandy has, until recently, been the quietest about multimedia. However, in the area of CD-ROM — originally a medium for storing text and data, but now considered a tool for multimedia as well — Tandy has taken a very impressive role. In fact, last year Tandy championed the first multimedia CD-ROM encyclopedia for young people. Compton's Multimedia Encyclopedia, developed jointly by Britannica Software and Jostens Learning Corp., is being co-marketed by Tandy. Schools interested in purchasing a non-networked hardware/software bundle can buy the multimedia encyclopedia already installed on a Tandy computer with a built-in CD-ROM drive.

Finally, there are the home computers — most of which can be conveniently (and economically) utilized by students at home to work on various school projects and classroom assignments. Among these are IBM's PS/2, Apple's Mac Classic, Tandy's 1000 RL, Packard Bell's force 1, Atari's 1040 STE, and Laser Computer's IBM PC clone, the Laser Computer Pal.

The Future Equation

As we look ahead to the year 2000, it's hard to predict which computer manufacturer will have the greatest market share in education. Moreover, in any future equation, one has to consider the across-the-board computer technologies of increasingly formidable Japanese companies such as NEC, Sony, Panasonic, Pioneer, Matsushita, Mitsubishi, Toshiba and Fujitsu. These companies offer integrated technology products — from the mainframe to the laptop, from the compact disc to the VCR — that will inevitably find their way into the multimedia environment of the classroom and the management centers of school districts.

What is clear, however, is that technology companies and educators will increase partnerships, both with much to offer the other — not to mention the next generation of youngsters called on to compete in the international economy. While any of these companies interested in the education market must listen closely to what educators need to succeed, it is also true that, through the products they create, they'll play an important role in shaping what is technologically possible in the evolution of the electronic school and the transformation of learning across America.

Judy Salpeter is managing editor of Technology and Learning, *an educational technology journal.*

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Education Marketplace

Integrated Learning Systems: Revolutionary Epicenter

Integrated Learning Systems provide individualized basic skills instruction in reading, writing, math and science.

BY THERESE MAGEAU

Educational software publishing is pretty big business — by some estimates, a $500-million-a-year business and growing. More than 200 companies share that $500 million, but it's not share and share alike. Fewer than 10 educational software publishers account for an estimated $200 million of that total, but arguably, they are at the epicenter of the electronic-schools' revolution.

There are the Integrated Learning Systems publishers and their products, known as ILSs — perhaps the most controversial technology in education today. Leading the way are Jostens Learning Corp., Computer Curriculum Corp., WICAT Systems, New Century Education Corp., Wasatch Education Systems, The Roach Organization, Ideal Learning, Computing Network Specialists, Unisys Corp., and Computer Systems Research.

How an ILS Works

ILSs consist of networked software that incorporates complex management systems to provide individualized basic skills instruction in reading, writing, math, and science — mostly for grades K-8. ILSs are correlated to all the major textbooks, so that a school district's curriculum can be matched, objective by objective, to the software. A typical ILS works like this: A student goes into a lab, sits down at a computer terminal, and signs onto the ILS, which is loaded on the local file server. He indicates the subject area he'll be working on that day, and the system takes him to the point at which he left off last time (or to the lesson that the teacher has set up for him to do). The lesson is part of a larger "pathway" of lessons designed to address a particular routine, or sometimes a tutorial, giving feedback as the student answers questions correctly or incorrectly.

Some ILSs are so sophisticated they can evaluate the student's performance while he is on-line, skipping problems if the student is mastering skills, dropping him back to previous lessons if he shows weakness in prerequisite skills. Other systems may simply print out a performance report at the end of the lesson and the teacher will use it to evaluate if the student should stay on course, move ahead, or repeat a lesson.

Accountability is a big issue in education these days, and it's a big selling point for ILSs. Teachers, principals, and administrators have access to tremendous amounts of data on how students are performing, and this information can help educators make decisions on curriculum and teaching practices. For instance, every Friday in Palo Alto, Calif., the district captures the data of 30,000 students who use the Com-

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What's the Problem?

All this seems well and good. Why, then, do ILSs cause so much debate? It's partially because of their price tag. Nonetheless, as most CEOs know, a considerable investment in technology, more likely than not, will enhance management efficiency and worker productivity. An investment in proven ILSs, it seems reasonable to say, is a small price to pay to help alleviate the vicissitudes of illiteracy that have been established to cost the United States some $200 billion a year.

ILSs are typically sold in configurations of 30 fully equipped workstations for approximately $125,000, which, to budget-conscious education managers, can be a lot of money. ILSs have also traditionally been sold using a top-down approach, meaning they target superintendents, rather than computer coordinators or teachers. The problem is, of course, that superintendents don't use the ILSs; teachers and students do, and there are stories about ILSs popping up in schools of unsuspecting, uninterested teachers.

Most of the 10,000 ILSs currently in schools were bought with Chapter 1 monies — federal funds earmarked for disadvantaged students. This funding history provides the fuel for the biggest criticism against ILSs: that they are basic skills "assembly lines" targeting low-achieving, poor students. These students, critics charge, are not being exposed to computer programs that encourage the kind of higher-level thinking skills promoted in education today. In addition, some educators claim, average and above-average kids "top out" of, or move ahead of, these systems fairly quickly. For them, it's hard to justify a pricey system that only a part of your student population can fully use.

On the other hand, it's hard to argue with success. At many ILS installations, educators regularly report impressive test score gains in basic skills, the building blocks of a successful school career. For ILS advocates, basic skills competency — and the sustained interest in education they believe it engenders — are more than ample return on investment in school populations where failure seemed almost ingrained. Moreover, ILSs can be especially responsive to the learning needs of minority students. For instance, WICAT Systems recently offered revolutionary Spanish courseware created to give Spanish-speaking students equal access to learning. Learning activities in the new Spanish math courseware include topics emerging from recommendations of the National Council of Teachers of Mathematics as well as other education specialists.

"Integrated Learning Systems are at the heart of education, serving as a positive technological complement to the role of the teacher."

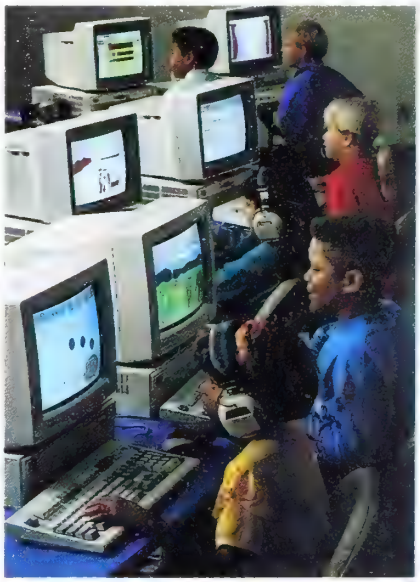
'Discovery-Based' Programs

Most ILS companies are trying to move beyond drill-and-practice programs and have developed or are developing the kind of software for which education is calling: "discovery-based" programs that can, for instance, simulate science experiments impossible to perform in a classroom; "whole language" software that encourages students to read and write across the curriculum; and "tool-based environments" that give students access to word processors, data bases, and even electronic mail.

Partnerships with third-party publishers — companies that develop smaller programs that typically run on individual computers — are new for ILS companies. These third-party publishers want access to the ILS companies' installed base and large direct sales force. And ILS companies want their systems to incorporate third-party programs that are popular with both parents and teachers, to help market their products to non-Chapter 1, mainstream school populations. (Computer Curriculum Corp. features computer-assisted curriculum on a unique, stand-alone microcomputer system called SOLO; it's designed to deliver thousands of hours of courseware for kindergarteners to adults in math, language skills, reading, and science.)

Jostens Learning Corp., a San Diego-based subsidiary of Jostens Inc., is the largest ILS company (with revenues accounting for more than half the dollars spent on ILSs). New contracts will enable the subsidiary to co-develop a multimedia English-as-a-second-language product with Davidson & Associates; carry The Learning Company's widely popular Children's Writing and Publishing Center as a part of Jostens on-line writing curriculum; and distribute Optical Data's videodisc series, Windows on Science. (Josten's recently bought an interest in Optical Data Corp.)

Integrated Learning Systems are at the heart of education, serving as a positive technological complement to the role of the teacher. Taken together, the arts and sciences curriculum they're delivering; the data on student academic performance they're accumulating; the positive effect on school district management they promise — all will help define the successes (as well as the failures) of the electronic schools' revolution in the autumn of the American 20th century.



Thousands of hours of courseware for all learning levels are available in Computer Curriculum Corporation's SOLO system.

Ms. Mageau is an editor for Electronic Learning *magazine*

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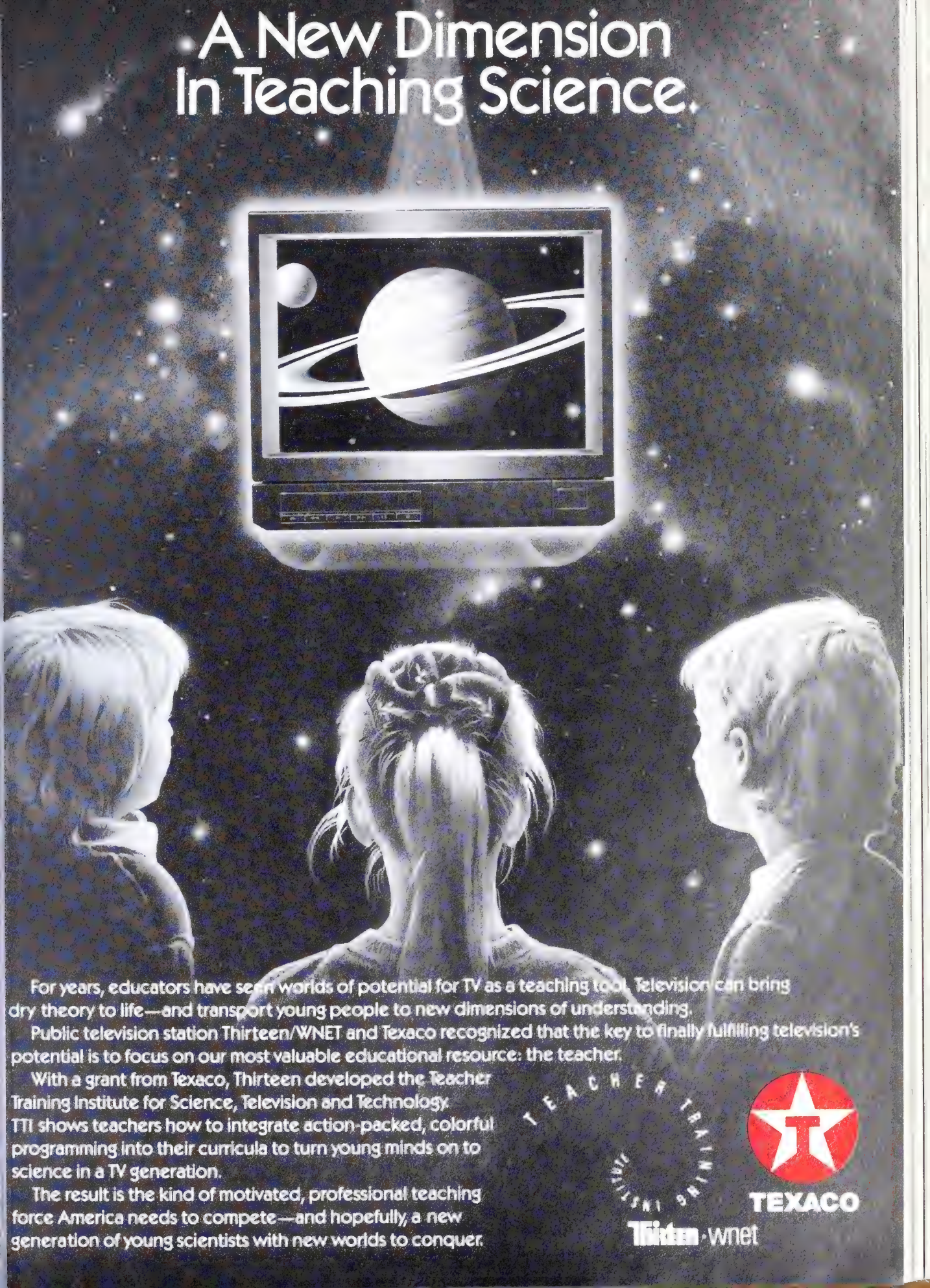

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Education Marketplace

The Software Role

AN INTERVIEW WITH BILL DINSMORE, PRESIDENT AND CEO, THE LEARNING CO.

As an educational software leader, The Learning Co. (Fremont, Calif.) endeavors to develop software products for young people, ages 3 to 14, that are rich in educational content and easy to use. Their software products are developed by educational and child-development experts and are tested extensively by teachers, children, and parents during (and following) development. We asked The Learning Company's Bill Dinsmore about the role of computer programs in education.

Q. Can computers in schools really make a difference?

A. Yes, they can. American schools are just beginning to get a glimpse of a new generation of educational technology. This next generation of computer software and hardware promises to provide a broader range of benefits than imagined when the first generation of microcomputers arrived in schools 10 years ago.

The long-term success of computers in the schools, however, depends on a new vision of how technology can help children learn, think, interact, and create. This vision is based on the experience of the last decade and a better understanding of how computers and software can best be used to enrich the learning process.

Q. What education software products do you expect on the market for schools in the '90s?

A. I expect an increasing trend toward software products that not only build important curricular skills, but that also enrich children's thinking and problem-solving abilities. Quite frankly, these higher-level thinking skills are difficult to teach effectively with conventional teaching tools. The power, interactivity, and ease-of-use of the microcomputer is ideal for accelerating their development.

I also expect more software similar to our newest generation of products, the Super Solvers Series, including Midnight Rescue, and Out-Numbered! — both of which combine the fun of a fast-paced adventure game with animation, graphics, and sound. Those ingredients appear to challenge students and make them want to play again and again as they develop essential reading, math, and thinking skills.

Q. What are some of the biggest challenges facing teachers today and how can technology help?

A. A major challenge facing teachers is how to individualize student instruction. Traditional classroom instruction focuses on a systematic presentation of curriculum — reading, math, spelling, vocabulary, etc.,

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In Beaver County, Oklahoma, Northern Telecom has just helped complete a digital fiber-optic school linkup. Using television monitors, this linkup enables a teacher in one school to teach many classes simultaneously. Courses in Advanced Placement English (Shakespeare's favorite), Art, Spanish and Accounting are now available to many students for the first time.

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to all students at the same pace. We design software that goes beyond displaying drill-and-practice routines on the computer screen. Our software may be set at different levels to match those of the child; this gives students control over their learning environments and enables them to proceed at their own pace.

Another serious challenge for teachers is how to integrate software into subject areas they are required to teach. We spend a lot of time and money designing products to support the classroom teacher's curriculum, as do most software publishers in the education market. Products like The Children's Writing and Publishing Center, an easy-to-use desktop-publishing program, enable teachers to work with children to develop writing skills by doing a classroom newspaper, or to help teach science by having children write and illustrate their lab notes.

Q. How important is the home environment in the overall equation?

A. The home environment is most important of all. Parents help the learning process greatly by providing opportunities for children to learn at home. They can get involved with their schools and communities to expand educational opportunities for all students.

Our research shows that more and more parents are introducing their children to the fun and rewards of using a computer at home, and, certainly, this seems to be confirmed by IBM, Apple, and Tandy's recent PC offerings for home applications. To keep pace with the ever more sophisticated standards for what today's child considers to be fun in home computing, software is available to provide entertainment value as well as educational value.

Q. Can the schools afford to expand their commitment to these technologies? Isn't this just too expensive?

A. They can't afford not to. Today we spend far too little. Only about 1% of the total school expenditures are used to fund technology. None of us in business or industry would experience any significant impact from new technologies by committing only 1% of expenditures on these advanced tools, which — after all — are designed to increase productivity across the board. This should be increased three- to fivefold.

"The long-term success of computers in schools . . . depends on a new vision of how technology can help children learn, think, interact, and create."

Q. Where, then, should schools spend this additional money?

A. To be sure, schools need to stay abreast of the best advances by being able to invest in newer, more powerful, easier-to-use personal computers. But the PC is only an "enabling" technology. The high impact will come from increased funding to allow schools to invest aggressively in the best new hardware and software throughout the '90s. Educational software is to the PC what a quality film is to a projector, or a quality video cassette is to a VCR.

Q. Since society and business are prime beneficiaries of quality education, how can corporations get involved in helping advance the electronic schools revolution?

A. American corporations ultimately pay the bill for a poorly educated work force by making extraordinary investment — financial and human — in the electronic schools revolution. Corporations and schools can finance the development of educational software by forming partnerships with nonprofit or for-profit educational software companies. The corporations can identify real-world skills they need better than anyone else can, and programs can then be developed by the software company to build those skills.

For instance, if American retailers find entry-level employees are consistently weak in understanding percentages, decimals, fractions, and pre-algebra, a specific program can be developed to build those skills. Every company should select and sponsor the development of products that they believe are beneficial to society and/or their workplace in the 21st century. A single product can conceivably reach all four million students of any specific age in the United States. Great products will have a huge impact. Poor products will not be broadly accepted. But the competitive financial leverage such initiatives offer this country is incalculable.

Software may be set at different levels to match those of the child.

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Education Marketplace

The Electronic Textbook

BY THERESE MAGEAU

In November, the Texas State Board of Education gave final approval to a decision made by the state textbook committee: schools can use money earmarked for textbooks to buy Optical Data Corporation's elementary science videodisc series, Windows on Science. For the first time in a state textbook adoption, the definition of a textbook was broadened to include a technology-based product, a revolutionary development in the concept of electronic schools. Together with the state of Texas, Optical Data made textbook-publishing history. And it's not even a textbook publisher.

Texas is one of 22 states in the country that each year asks publishers to submit textbooks to be considered for adoption in a particular subject and grade level. If a book "makes the list," school districts have permission to spend specially designated dollars to purchase it. The amount of money at stake is considerable. Texas will spend around $40 million dollars next year on elementary science textbooks alone, and there are only two companies on the approved list: Silver Burdett & Ginn; and Scott, Foresman and Co. — both of which will be offering textbooks — and Optical Data, which will be offering a six-videodisc series that gives students and teachers access to almost 650,000 moving and still images organized to cover the elementary science curriculum.

Of course, whether or not schools buy Windows on Science will depend on whether they have, or are willing to buy, the necessary equipment to use it. (Videodisc players and televisions cost an estimated $2,000 together, and monies for them cannot come out of textbook funds.) Teachers must also be willing to teach science differently from a read-the-book-and-answer-questions-at-the-back-of-the-chapter approach. Bill Clark, president and co-founder of Optical Data, is betting schools will buy. "We're the differentiated product," he says. " We believe we're giving teachers strategies and resources that have a chance of improving student performance."

Surprisingly, not everybody in educational technology is gleeful about the Texas decision. Richard Erdmann, chairman of the board of Wasatch Education Systems, a Utah-based publisher of integrated learning systems, believes that "if technology does the job it should do, it should challenge the curriculum. And it has a golden opportunity to do that today because we're not embroiled in the politics of adoption." Such politics, says Erdmann, have historically led to "watering down" textbooks, so that they are mediocre at best. He is concerned that the same thing will happen to technology.

Bill Clark agrees that the indictments against adoption politics are "right on the money." However, he says, that shouldn't stop technology publishers from submitting for adoption; their participation may compel

The Optical Data Corporation has created an elementary school level video called Windows on Science.

ıe process to change. But that ·quires taking the initial risk. "If you ant to make changes, you have to ɔ opportunistic," says Clark.

In spite of his concerns, Erdmann ɔes acknowledge that the potential r technology publishers to tap into xtbook monies (the textbook dustry annually pulls in $2 billion a ɔar) "probably means a lot more oney for technology, a lot more oney for development, and that's ɔod for the industry."

ɔher States May Follow

ɔher adoption states are looking osely at what Texas has done. Cali-rnia, in particular, is eager to put xtbook money behind instruction-·technology products that can help achers better meet the diverse ɔeds and interests of their students.

"A textbook is a good way of orga-zing information," says Bill Honig, ıperintendent of schools for the ate of California, "but once it's ɔne, it's done. There's no flexibility. ɔmputer software can also organize formation, but it gives you a lot ore opportunities for exploration ıd interaction."

California is, in fact, so certain of chnology's potential to enhance arning that it has funded the devel-ɔment of several educational-tech-ɔlogy programs. It is currently ɔ-developing — with a long list of ɔftware companies — a program ılled Science 2000, which it is hoped ill replace the science textbook for ·venth-grade students.

"Text itself is not going to become ɔsolete," Honig says. "But we're lking about how it will be delivered ·that will change."

Florida, another state that spon-ɔrs large textbook adoptions, ınounced in August that every mid-e and senior high school in the ate will receive a copy of AIDS, a deodisc produced by ABC News teractive, the educational publish-g arm of ABC News. The disc will ɔmprise the cornerstone of the ate's AIDS education program. The ate also announced plans to co-·velop videodiscs with ABC News teractive and with the National ɔographic Society.

But despite Florida's strong com-itment to technology, the state is ɔt rushing to follow Texas and free

The ABC news Interactive videodisc AIDS is mandatory viewing in Florida high schools.

up textbook money for technology purchases.

"I can't say, 'Let's replace textbooks with technology,' because a kid can't carry technology home," says Shirley McCandless, instructional computing consultant for the Florida Department of Education. For McCandless, the issue of accessibility is a sticking point to adopting technology. All students need equal access to "the primary deliverer of information," she believes, "whether they're in the home, the classroom, the library, or study hall." Textbooks can easily be in all places, but right now technology cannot, particularly not in the home. "Not all homes have televisions, much less computers or videodisc players," says McCandless.

Texts Won't Disappear

But even if every home and every classroom in America were outfitted with the latest technology, textbooks would not disappear from schools. "The so-called experts have been predicting the death of textbooks for years," says Patrick Donaghy. "I don't think it's an either/or future. Schools will use both textbooks and technology."

Donaghy might well hope they do. As president of the education group at Simon & Schuster, Donaghy oversees several strong textbook companies (including Silver, Burdett & Ginn and Prentice Hall) and a growing list of technology publishers (including Computer Curriculum Corp., and Coronet Film and Video).

To Donaghy, textbook companies need to think of themselves as instructional materials publishers, rather than as textbook publishers. "We have to define the business in terms of the customer, not in terms of the product," he says. "What do our customers need? They need a variety of instructional materials suited to a variety of learning styles."

Scholastic Software Publisher Peter Kelman takes the point one step further. "The time is here," says Kelman about the merging of the textbook and technology industries. "Any textbook publisher that doesn't have its own division or a strategic alliance with a technology company is in serious trouble."

Textbook Bar Codes

Although John Lawyer, marketing manager for science and social studies at Holt, Rinehart and Winston, believes the textbook business is rock-steady, he nonetheless acknowledges that the "competitive pressures of the marketplace" compelled his company to team up with Optical Data to encode Holt science textbooks with bar code strips correlated to Optical Data science videodiscs. Similar to the bar codes found on grocery packages, bar code strips are placed in the teacher's edition of a textbook. By simply waving a bar code "wand" over a strip, a still-

10:15 AM

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image, text, or video sequence related to the paragraph or chapter is brought up instantly on the television screen via the videodisc player.

Lawyer at first was unsure if the partnership would drive sales. "We were uncertain how willing schools were to buy the necessary hardware." But ever since Holt announced the bar coding agreement, Lawyer's sales representatives have received a steady stream of calls. "There has been a great deal of interest from our customers. Much more than I ever thought," says Lawyer.

Another imaginative electronic book publisher making technological inroads in the electronic school is Toronto-based Discis Knowledge Research, Inc. Its Discis Books are distributed on CD-ROM and read using any Apple Macintosh (including the LC, Classic, and IIsi) and a CD-ROM drive. Students simply click their mouse and read from a range of titles, including *Cinderella* and Beatrix Potter's *A Tale of Peter Rabbit.*

This kind of partnership may represent the surest way teachers have to easily integrate technology directly into their instruction. Teachers do not have to know how to use a computer, or even a remote control device. They do not have to stay up late trying to match video images with the chapter they're teaching. They don't even have to fast-forward or rewind. They simply wave and watch. Indeed, Shirley McCandless is so impressed with this technology that she believes Florida is not too far away from "requiring all textbooks to put in bar codes." And it will happen fast, she thinks. "It's like crumbling communism. Once one company goes, they all will go."

The decision in Texas is probably going to shake up textbook publishers more than they might have guessed. "It takes something like a big win down in Texas for textbook companies to hear the wake-up bell," says Bill Clark. He believes textbook publishers are standing at a threshold. "Textbook companies need to make fundamental decisions about their business. Is technology a passing fancy, or is there a fundamental change happening in education?" he asks. "Textbook companies are literally looking at a reinvention of their business."

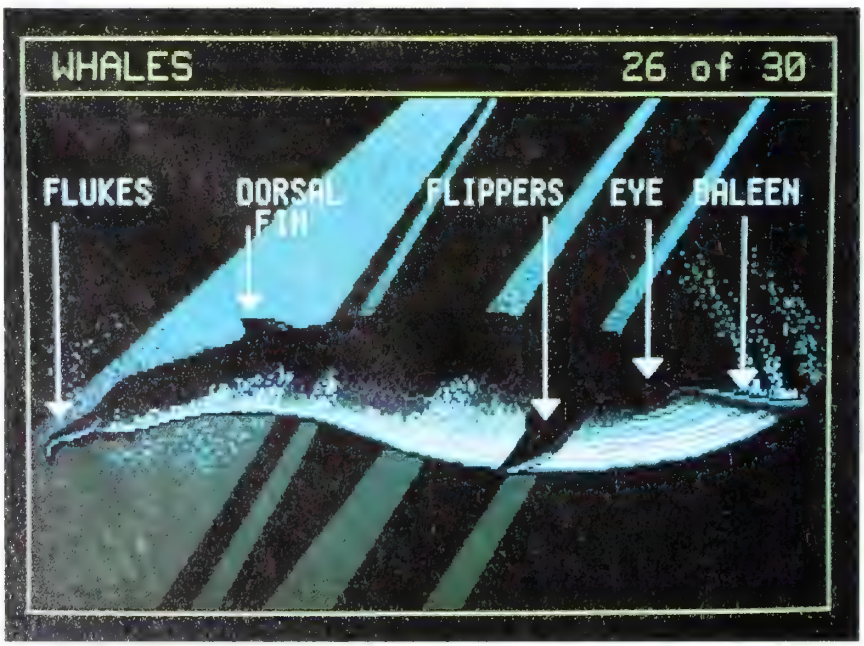
They should also be looking at a reinvention of the textbook, if you talk to Bob Weiler, president of Interleaf Inc. The Massachusetts-based company works with industries such as aerospace, where workers have enormous amounts of reading materials from which to choose. Interleaf specializes in technology that creates "intelligent" or "active" documents, which are designed on the principal that everyone needs to read, but not everyone needs to read the same thing. "Intelligent documents retrieve information based on the user's needs," explains Weiler. "They address two major limitations of books: They're not locked in ink, and everybody's copy can be different."

With intelligent documents students have access to (on either a networked hard drive or a CD-ROM disc) any kind of reading material, including textbooks, trade books, magazines, or on-line databases. Students call up only those chapters, paragraphs, articles, illustrations, or graphics they need. Teachers or computer-managed instructional systems can assign text material based on a student's current reading level. All documents can be laser-printed, enabling students to take their "books" back to their desks, to study hall, or home. These are a form of customized textbooks.

McGraw-Hill, Inc. has put a similar concept into action with college textbooks. Using text materials stored in electronic databases, the system allows college professors to custom-design their own textbooks. Professors select from all chapters of specific texts, along with related materials, and organize their own textbooks according to their course requirements, in formats they find most appropriate. The newly edited texts can be printed and delivered within days of McGraw-Hill's receiving the order and instructions. Soon, such texts will be printed out right at college bookstores.

But they're not available to K-12 education — at least not yet. "We're trying to move the whole publishing industry in this direction," says McGraw-Hill chairman and CEO Joseph L. Dionne. McGraw-Hill says that its custom system is successful at the university level, and the company is considering a similar project geared toward elementary and secondary schools.

Education has long been criticized for not using technology as well as business and industry use it, but Donaghy thinks those days will soon be over. "I think we're going to go very quickly from the 19th century to the 21st century with hardly a pause in between." And with mighty Disney's recent entry into the children's book publishing scene, that time might be quicker (and more creative) than even Donaghy predicts.



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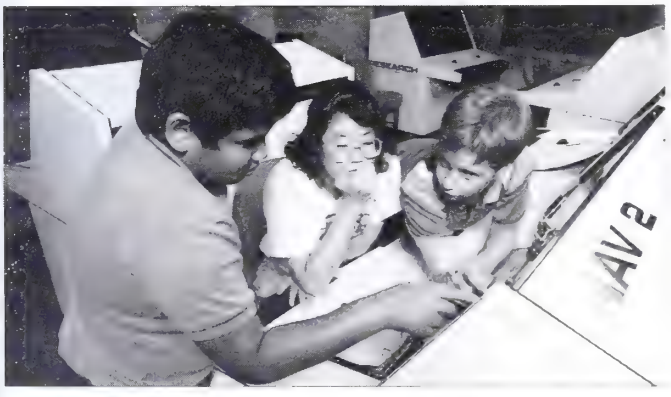

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Education Marketplace

Interactive Technology for Education

BY ROBERT BROOKS AND BARRY PERL

Most every business person agrees that the educational system in this country is not producing acceptable results and that America's ability to compete equally with the Pacific Rim and Europe is seriously endangered.

Almost 30 years ago, futuristic thinker and designer Buckminster Fuller was asked to present his ideas on education for the future. His solution to the dilemmas of the educational system involved utilizing two evolving technologies, television and computers, to make the most articulate and knowledgeable experts in the world in each subject area available to students. He'd do this by getting these experts to record their knowledge on film and then have the films worked and reworked until they contained near-perfect explanations of their subjects. Then he'd exploit the undeniable attraction of youth to television by developing a worldwide, two-way educational television network with access to this video-based knowledge.

Fuller believed that this kind of interactive system would free rare, invaluable experts to do their research while still making them available to students around the globe. In addition, he believed this type of system would solve another major dilemma for education: Children don't learn at the same rate and are not interested in the same subjects at the same times. The failure of modern education indicates students don't do well when forced to learn the standard subjects at the standard times at the standard rate of the modern school classroom. By using a two-way TV system, schoolchildren could learn at their own rates and, perhaps as important, could select topics they were interested in at any given point, thereby continually reinforcing the desire to learn.

Getting Personal

The big event that most futurists didn't foresee was that computers and computer networks didn't just get bigger, they also got smaller. Instead of just producing monstrous central databases for simultaneous access by thousands of users, the technology shrank and computers became personal. As personal computers evolved they began to look more and more like—televisions! In fact, early Apple computers became the favorite of kids and educators rather than businesses because they could be used as a sort of two-way television. On Saturday mornings, while most kids passively watched

Interactive Sesame Street software from Children's Television Workshop and Nintendo brings Big Bird into the Information Age.

ilencoe's Optical Data bar coding system allows teachers to display vivid laser-disc images (top photo) correlated to textbook topics.

cartoons, the kid with an Apple, Amiga, IBM, or Tandy was playing the latest video game, as an active participant in his own cartoon.

Such student acceptance led several hundred entrepreneurs to embark on successful development of educational "courseware." Fully 96% of the 105,000 schools in the country have added such programs to their curricula over the past four years. Over time, this courseware evolved into impressive Integrated Learning Systems, in which whole libraries of instructional software as well as tests and practice exercises are stored on computer. Students are now able to access specific programs, tests, or exercises as directed by the teacher. The systems keep records of each student's progress, score the tests, and supply teachers with reports to help them track every student in the class. Learning has become highly interactive and individualized for students who have such systems, and their teachers have more time for one-on-one instruction.

And TV, Too

While computers have evolved, so has television. Their paths have crossed and are increasingly taking similar turns. Technologies such as VCRs, videotapes, and videodiscs have created a new medium: interactive video. Using special "authoring" programs, student computer novices as well as teachers can create interactive software incorporating video and sound.

Enterprising inventors first developed videotape systems controlled by computers. These systems, while "interactive," were too slow to be useful in the educational environment. Videodiscs, 12-inch silver video "records" capable of storing up to 54,000 pages of information each, were the first workable interactive, computer-controlled video medium. Easy-to-use videodisc systems offering up to four levels of interactivity are now available. For example, some textbooks now have accompanying videodiscs; in one, a section on cell biology references a videodisc sequence of live cells dividing. Incorporating high-quality video and sound along with the textual material, these discs have received outstanding student acceptance, due to the increased student attention span, rate of learning, and retention they can produce. The state of Texas recently approved the use of videodiscs as electronic textbooks for selected science courses. (See the preceding essay, "The Electronic Textbook.")

Vast Video Possibilities

Just as computers and computer memory have become smaller and more powerful as they have evolved, so has the video medium. Videotape and videodisc are beginning to give way to the latest laser-based technology, digital CD-ROM (for compact disc read-only memory). Now sound and video can be converted to digital impulses and then permanently stored by lasers on compact discs, a revolution for creative youngsters caught up in the exciting learning possibilities in electronic schools.

Prominent among these new technologies is PC multimedia, which is incorporated into products such as Phillips' and Sony's CDI, Intel's DVI, and IBM's M-Motion. These products promise to revolutionize learning by providing high-quality sound, pictures, and full-motion video directly into software systems used for education and training. Whereas books typically explain via text with a few static images or diagrams to help elucidate the written subject, interactive multimedia can present information with high-quality sound, pictures, and full-motion video, making the subject much more real and understandable to the student. The new Compton's Multimedia Encyclopedia, from Encyclopaedia Britannica Educational Corp., is an early

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example of such futuristic systems. Using a personal computer and a special compact disc player for computers, an entire encyclopedia of nine million words, 5,000 articles, 33,000 entries, 15,000 photographs and charts, 60 minutes of sound, and 45 animation sequences, plus the entire *Merriam-Webster Intermediate Dictionary*, all on a single compact disc, can now be accessed by a student from school or home. (For the student or classroom without a PC, the encyclopedia can be bought as a package that includes a Tandy 2500 XL computer with CD-ROM drive).

Adding to this new medium for students to learn what they want, when they want it, is an exciting technology known as "hypermedia." An extension of the concept of "hypertext," this term describes the ability of a computer user to explore a subject in any order and to whatever depth he or she wants. By pointing to a word or image on the screen, the student opens up a new window in which more information about that key word or image is displayed. This information might include graphics, vocal description, high-quality photographs, and full-motion video clips as well as written text.

Using these new tools, entrepreneurial businesses can realize in this decade the dreams of Buckminster Fuller and other visionaries. Courseware can be developed that will enable students throughout the United States to learn from the great-

Compton's Multimedia Encyclopedia contains a wealth of audio, visual, and textual information on a single compact disc.

est minds of the day. Businesses can benefit as these same tools are employed to help workers quickly learn technical information and skills required in highly competitive services and industries. Knowledge is the principle ingredient for success in business, just as it is in school. Interactive multimedia systems for education and training offer coming generations easier access to the knowledge they will need to help create that success, in both their personal and business lives.

Robert Brooks Ph.D, and Barry Perl MBA are senior partners with VISCOMP Systems.

"In large part, how well we incorporate technology into the education of our children will ultimately determine how competitive we remain in the global, technologically driven economy."

JOHN L. CLENDENIN
Chairman & CEO, Bell South Corporation

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Education Marketplace

TV in the Classroom

BY JAMES J. HIGGINS

Television has been the dominant medium of Western culture for almost half a century. More than any other medium, it's caused the world to shrink, bringing the collapse of the Berlin Wall and communism into most homes throughout the world — not to mention every wired classroom in America. But from the beginning, it has been blamed for a wide range of social problems. In particular, it has been considered an onerous adversary of serious education in the schools.

Television viewing by elementary and secondary schoolchildren has been blamed for poor SAT scores, lack of interest in reading and even illiteracy, a reduction in intellectual curiosity, and a predilection for passivity. But things are rapidly changing.

Carole J. Kealy, as director of community development at The Arts and Entertainment Network, is responsible for management of the network's educational outreach project and offers a simple explanation for widespread and growing use of television as a tool for teaching: "The classroom," she says, "has proven to be an appropriate television environment when television programming creatively enhances overall curriculum and the daily lesson plan. Today's educators increasingly can not only select a wide variety of programming with educational merit, but they also have access to regularly scheduled, commercial-free programming blocks; liberal taping and copyright guidelines; exclusive study guides; grant money; and other classroom assistance."

CTW's "3-2-1 Contact," a series about science and technology for elementary school-age children, is being repackaged for in-school use.

A "Candy Store" of Programs

With captivating programming options provided by the A&E cable network as well as Children's Television Workshop, The Discovery Channel, CNN, C-SPAN, The Learning Channel, and the Public Broadcasting System, among others, educators are now faced with nearly limitless visual educational programming. According to Keith Geiger, president of the National Education Association (NEA), "The programming that can help the most in the classroom is programming that unsettles fixed assumptions. For it is when our students are released from intellectual orthodoxy and mental rigidity that they begin to develop the analytical and critical skills that challenges awaiting them demand.

"Today," Geiger continues, "none is more imposing than the challenge of global understanding . . . We must promote this understanding. But we're limited: We can't take our students on field trips to visit Aquino or Walesa or Havel or Mandela. We can, however, bring them to visit our students — electronically, in living color, up close and personal — via television.

"These exhilarating possibilities are within our reach," he says. "It would be tragic if we were to squander this potential."

Ironically, one highway schools are using for "electronic field trips" is Whittle Communications' "Channel One," an enterprise partly owned by

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Time Warner and opposed by the NEA and several other national education organizations because its programming contains commercials.

Whittle's relationship with the school community is instructive on several counts. It provides dramatic contrast in problem-solving approaches used by the education bureaucracy and a business organization. In its favor, it also focused the nation's attention on the paucity of technology available in most schools.

From focus groups made up of teachers, Whittle learned of educators' (and parents') concern about inadequate student knowledge of current events, cultural studies, and geography. The education system, to its credit, has been wringing its hands about this problem for years, but the Whittle experience brought it to the attention of the nation at large.

Like education, Whittle is a print-based enterprise — a publisher of magazines and billboards. Whittle suggested a current events periodical targeted at high school kids. The educators said, "no thanks — our students already ignore mountains of print-based resources." And one teacher added: "What we need is a 'Today Show' for kids."

That sounded like a great idea to Whittle, so the company began building a satellite delivery system to carry what became "Channel One," a 12-minute news and current events program for the nation's high schools. One major obstacle developed: Only one in 10 U.S. high school classrooms had access to a television. Whittle offered to lend the equipment to the schools — satellite dish, television, and VCR — so they could receive the broadcast. Both the programming and the technology would be paid for by the two minutes of commercials included in each day's show.

Simultaneously, Turner Broadcasting offered schools a commercial-free alternative, "CNN News Room." (Originally, Turner was going to sell public service-type advertising but backed down when many education leaders objected.)

Both programs are now available to schools, and each provides quality, timely programming and valuable collateral materials for teachers. CNN might yet be joined in the battle for classroom viewers by the "Baby Bell" companies if Congress lifts the ban that restrains them from transmitting information. The administration supports lifting the ban, as do an increasing number of congressional lawmakers and educators. Whatever the outcome, teachers can expect an explosion of new television programming from cable, satellite, and direct-broadcast, satellite-driven sources.

Teacher Janet Preston helps students create a visual presentation using GTV, National Geographic Society's new interactive multimedia program for the classroom.

Children's Television Workshop, (CTW) has been producing popular and highly regarded children's programs since "Sesame Street" debuted for preschoolers in 1969. "The Electric Company," "3-2-1 Contact" and "Square One TV," designed primarily for home viewing by elementary school children, have been widely used in classrooms. In recognition of this, CTW, with a grant from the National Science Foundation, is now repackaging its elementary science series, "3-2-1 Contact," for in-school use. The new programs tied to the elementary school curriculum and complete with teaching guides, will be in schools next fall, says Dr. Rob Madell, CTW's vice president for Schools and Technology.

Joining Forces

The television industry, like other educational suppliers, has recognized the importance of building a partnership with educators. Ruth Otte, president of The Discovery Channel, is sensitive to the issue. "Those of us providing video materials and software must seek to build an ever closer relationship with educators," she says. "We must learn to respect the time, concerns, issues and priorities of teachers and school administrators, and we must make our products relevant to the realities of their daily lives."

"Assignment Discovery," a daily broadcast of two half-hour documentaries developed in partnership with teachers and teacher associations, is second only to PBS in popu-

arity among classroom viewers.

PBS enjoys a distinguished, award-winning reputation for richly produced educational programming. A classic example is, of course, the recent Ken Burns series, "The Civil War." Schools are clamoring for videos of the series for use in history and socio-cultural curriculum. The PBS series, "Scientific American Frontiers," which is airing through February, is available to secondary-

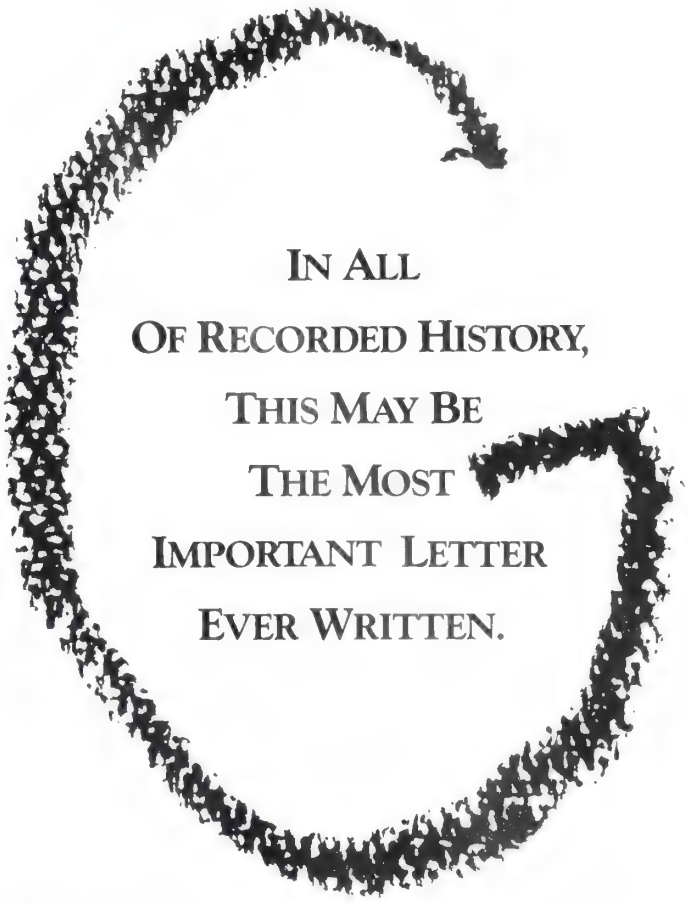
"To ignore the promise of harnessing technology to the classroom would be irresponsible."

PAUL A ALAIRE
President and Chief Executive Officer,
Xerox Corporation

chool science educators for class-oom use with complete off-air ideotaping rights. "FUTURES" explores real-world mathematics pplications with remarkable East os Angeles mathematics teacher aime Escalante. (The series is nderwritten by ARCO, The Carnegie Corp. of New York, IBM, and the U.S. Department of Energy.)

A number of education television programmers — Discovery, National Geographic Society, Lucasfilm Learning, Disney, Evergreen Laser Disc, and others — also develop educational programming on interactive videodiscs. For teachers still reluctant to use technology, videodiscs may be the pathway to a new world of classroom learning. Much of the programming for this young television-based medium is spectacular — from a tour of the Louvre Museum to ABC News Interactive's compelling program on AIDS.

Indeed, television programming joined with IBM's PS/2 or Apple's Macintosh computers and Pioneer's LD-V2200 LaserDisc player is a salutorious example of a seamless, interactive marriage of educational visual opportunities for children in schools across America.



This historic "G" was written by Eddie Brown, a 52 year-old millworker who, until recently, was one of this country's 30 million non-readers. After only one day in the first grade, he had to leave school to go to work; he's been working ever since. Learning to read and write seemed like an impossible dream.

But now, things have changed.

When Mr. Brown's employer offered an adult literacy program at the workplace, he was one of the first to sign up. With only eight hours of instruction, he had learned to recognize and write 90% of the alphabet. Now, he's reading and writing words.

Mr. Brown is learning to read and write using *Touch Reading*, an exciting new courseware program from CENTEC Learning Systems which combines IBM's leading edge interactive multi-media technology with a refreshing new approach to computerized instruction.

The beginning student doesn't have to be able to read the screen in order to use the program. The system's video tutors interact with the learner through the use of touchscreen technology.

Touch Reading is unlike any other computer-based courseware ever developed. The system monitors student progress and even creates lessons to meet specific learner needs. The technology is sophisticated; the learner interface is simple; and, the student is successful.

With the help of *Touch Reading*, Eddie Brown is freeing himself from a lifetime of limitations.

If your company has employees who have reading problems and you want to make a difference, give us a call.

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Education Marketplace

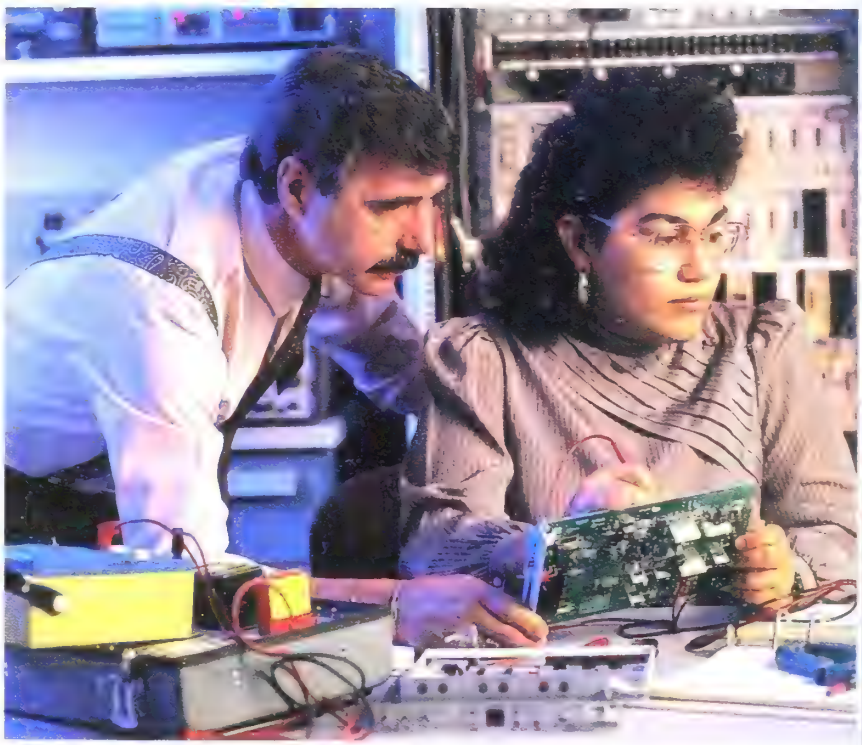
Telecommunications Makes A Call

BY NELSON B. HELLER

The wired schoolhouse is connecting kids and teachers with an amazing array of instructional support. Telecommunications technology has yet to receive the press coverage given to personal computers in the classroom, but its impact on education will be equally far-reaching. Indeed, coaxial, fiber-optic, standard copper phone cables, and satellite communications provide students and teachers alike with a remarkable number of instructional, informational, and administrative resources.

Following the historic breakup of the Bell System in 1984, the regional "Baby Bell" companies were banned from providing long-distance and information services and manufacturing telecommunications equipment. There is, however, a movement under way in Congress, supported by the Bell companies and endorsed by President Bush and several education organizations, to provide information services through telecommunication applications in the classrooms. This promises to be one of the great corporate battles of the '90s: the telephone industry vs. cable, and the battlefield will be school districts throughout the United States.

In the meantime, schools are already utilizing the limitless, interactive information possibilities of telecommunications.



A New York Telephone employee guides a Brooklyn high school student as she explores the intricacies of voice and data communications.

Distance Learning

Why would a school district choose to deliver classroom instruction by television? Far from the sometimes numbing and passive experience of instructional television of past decades, today's distance learning uses live video teleconferencing to bring a remote instructor to students in specially equipped classrooms. As for interactivity, pupils respond back by voice phone, or — in the most advanced systems — by video.

According to "Link for Learning," a landmark report on distance learning issued last year by the congressional Office of Technology Assessment, the U.S. Department of Education projects that between 1988 and 1997, about 1.6 million new teachers will be needed. These large numbers mask the fact that the demand for specifically qualified teachers has grown disproportionately. Tougher state graduation requirements and prerequisites for college entrance have pressured school districts to strengthen staffing, especially in mathematics, science, and foreign languages. Nowhere has the staffing problem been more acute than in rural America, where small communities are finding it virtually impossible to staff for many required courses. But state laws say failure to

so means consolidation of schools d school districts to form a critical ass of students that can support the l curriculum.

Enter distance learning, the lecommunications answer to mote instruction and preservation local control of education. Video gnals require high bandwidth com-unications channels — not yet the isted-pair copper currently linking r telephones. The most commonly ed links are satellite, microwave, FS, coax cable, and fiber optic. For ample, the TI-IN Network, Inc. in San ntonio, Texas, is a for-profit service at sends educational courses via tellite to more than 6,000 students nearly 1,000 school districts in 29 ates. Participating schools capture ogramming with a satellite dish and ecial receivers; students respond their instructors by voice phone.

But for many communities, satel-e-delivered instruction fails to eet local needs: TI-IN's 29 states n't all have the same curriculum, acher certification requirements, xtbooks, or class schedules. For is reason, regional distance-learn-g networks, serving at most a few jacent school districts, and linked two-way video with fiber-optic or gh-speed data lines, are springing nationwide. Iowa has more than of them. Local teachers provide e instruction, allowing local school stems to control their educational stinies. States such as Iowa, nsas, Minnesota, New York, and isconsin are exploring statewide ackbones" to link the regional net-orks to one another.

Students aren't the only beneficia-es of distance learning. About half -IN's programming provides in-ser-ce training for teachers. Some sys-ms, linked to regional teachers' lleges, even offer educators off-mpus master's degrees via the new chnology. Other systems provide ecial-needs programming, such as a ay-long video teleconference on DS presented by the Dallas Inde-endent School District for its 9,000 achers and administrators.

oice and Data in the Classroom

the past few years, state and local ws governing public education ave been declared unconstitutional Kentucky and at least 12 other states. In virtually every case, educational inequity has been the biggest factor. Since something like half of most school systems' budgets are funded locally (the states pay most of the balance), poor communities simply cannot deliver the quality of education available in more affluent areas. As a facet of wide-ranging reorganizations and changes to redress inequities, many states and communities are turning to educational technology and telecommunications. Taking a first step to enhance communications and information exchange in Kentucky schools, the state's legislature recently passed a bill mandating that every elementary through high school classroom have a telephone.

What can a teacher do with a phone in the classroom? "Improve security" is the answer most educators give. From reporting a medical emergency to asking for help when disruptive outsiders loiter in the halls, phone communication is swift. The classroom phone also opens up an effective channel of communication between teachers and parents.

Some schools have added voice mail, which allows parents to call in for recorded information about what was covered in each class and what homework has been assigned. These same systems may also incorporate voice bulletin boards, with regularly updated information on the cafeteria's lunch menu, calendars of school activities, and weather-related school closings. Parents can also leave voice messages for teachers to return. The voice systems can call out as well, automatically playing back recorded truancy notifications to parents for their children's unexplained absences, or a message from the principal "personally" congratulating parents on their kids' outstanding academic or extracurricular activities.

With a personal computer and a modem connected to the phone line, communications possibilities explode. Classrooms can access a wide range of on-line information and

Classmate℠ from Dialog Information Services provides students on-line access to 320 databases.

data communications services. Information service vendors, such as Dialog Information Services (Palo Alto, Calif.), offer specially priced packages for educational access to their on-line reference databases. Dialog's CLASSMATE℠, for example, provides low-cost access to a subset of its 320 databases covering virtually all subjects. Other firms offer innovative curricular-support information services, such as WorldClassroom from GTE Education Services (Irving, Texas); science teachers at subscribing schools can retrieve daily weather and earthquake data, excerpted from U.S. government data services and reformatted for use in a school setting.

The National Geographic Society's Kids Network™, cosponsored by the National Science Foundation and produced jointly with Technical Education Resource Centers of Cambridge, Mass., gives students a chance to work as true scientists by compiling data on local phenomenon and sharing it electronically with other schools across the country. Professional scientists supporting the project use the data to produce a national report, to which local data can be compared, and they field questions submitted by students via electronic mail (E-mail).

FreEdMail, the Free Educational Electronic Mail service launched by San Diego educator Al Rogers, shows that educators have a growing appetite for data communications, especially if cost is not a concern. Teachers trade electronic notes on everything from the best way to teach long division to how to handle classroom discipline problems. More than 120 schools and educational agencies around the country have volunteered use of their personal computer hardware and local phone lines to form a communications network that ingeniously stores and forwards teachers' E-mail during off-peak hours, when rates are lowest.

There's More to Come

Farsighted communities are installing high-bandwidth cabling in every room of every new school built. Whether coax, fiber-optic, or twisted copper pair, these channels can simultaneously carry voice, data, and video communications to classrooms and administrative offices. One benefit may be the end of the A/V cart and the attendant logistical hassle of delivering the right projector and film to the right room at the right time.

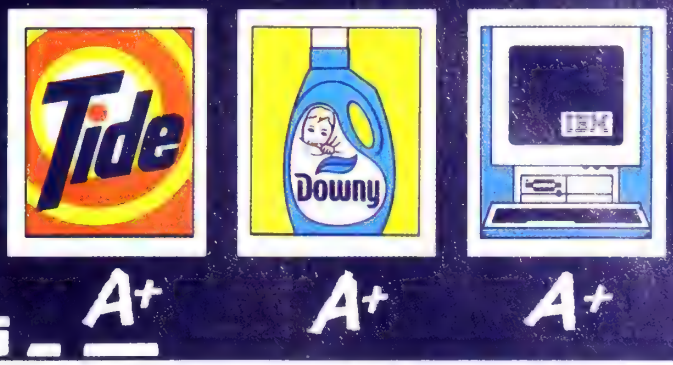
Dynacom, Inc. (South Bend, Ind.) offers an in-room control device called an Integrated Information System (IIS), which allows teachers to electronically access slides, videotapes, films, and other media from a central media facility, for display on classroom video monitors. Ball State University has more than 200 classrooms linked via IIS to the campus library, where a half-dozen 16mm projectors now do the job of 200, which were spread around the campus's 89 buildings. That's a saving that business can identify with, and one directly attributable to technology.

High-bandwidth communications can also turn school local-area networks (used for delivery of sophisticated, computer-based instruction and administrative communications) into districtwide or regional networks. For example, PC-based integrated learning systems (ILSs), networks tied to a high-capacity file server, are increasingly used to provide students with customized tutorials as well as drill and practice in areas required by state curriculum codes. Fiber or coax links support remote access to these systems, as in the Contel experiment in progress in Whitehouse, Texas, where students unequipped with instructional systems are tying into buildings that have them.

This is but the tip of the technological iceberg in the electronic schools revolution: The telecommunications industry and America's educators are just beginning to understand how they can work together to help youngsters obtain the education they'll need to compete in high-tech markets. Think about it when your school board is dithering for the 40th time over whether to allow a phone in one of the teachers' lounges.

Nelson B. Heller, Ph.D., is publisher of The Heller Report on Educational Technology and Telecommunications Markets.

TEAMING UP FOR BETTER EDUCATION



ducation is the key to our children's future. That's why Tide,® Downy* and IBM are proud to nnounce a new program called "Teaming Up for Better Education." In partnership with local tailers, the program will provide more than $8 million in much needed computer equipent and software to elementary schools nationwide.

o far, Tide and Downy have offered elementary schools an opportunity to earn one of 115 free mputer labs, including IBM Writing to Read,** cience and Math Labs. By March 1991, your local de and Downy retailers will have donated millions iore in IBM computer equipment and software.

ide, Downy and IBM are "Teaming Up for Better Education," because if we can educate our ementary school children today, we stand a better chance of making their dreams come true omorrow.

Program developed in conjunction with the National Association of Elementary School Principals and the National Association of Partners in Education.

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*Developed by Dr. John H. Martin

Education Marketplace

High-Tech Have-Nots

In nearly 20% of U.S. schools surveyed in a Fall 1990 Quality of Education study, each student must share a computer with as many as 29 others. Furthermore, in 17% of the schools, there are 90 or more students for every computer. Other results of the study show a similar deficiency in all kinds of high-tech equipment at all grade levels.

Micro Density in Public Schools

80,392 (97% of schools have at least one computer)

		Students/Computer Ratio						
Grade	Subtotals	1-9	10-14	15-19	20-29	30-44	45-59	60-89	90+
Elementary	49,762	2,916	4,695	5,543	9,637	8,459	4,659	5,179	8,674
Middle/Junior	12,836	946	1,784	1,863	2,888	2,031	890	882	1,552
Senior	15,980	1,772	2,257	2,188	3,046	1,998	779	814	3,126
Other	1,814	534	220	125	199	182	100	118	336
Total	80,392	6,168	8,956	9,719	15,770	12,670	6,428	6,993	13,688

Source: Q.E.D.

Market Share Trends of Instructional Computers

K-12 Public Schools

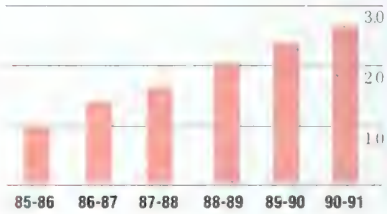
Brand	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Apple	55.0%	56.6%	60.6%	63.5%	63.7%	63.5%
IBM	5.1%	6.1%	8.0%	10.2%	12.1%	13.9%
Tandy	15.9%	13.3%	12.8%	10.3%	9.8%	8.3%
Commodore	12.6%	10.8%	10.1%	8.1%	7.2%	5.5%
Other (inc. ILS)	11.4%	13.2%	8.5%	7.9%	7.2%	8.8%

Source: Q.E.D.

* The numbers are preliminary for Fall 1990 and probably understate IBM and Macintosh – Q.E.D.

Installed Base of Personal Computers, K-12

Public Schools (total in millions)



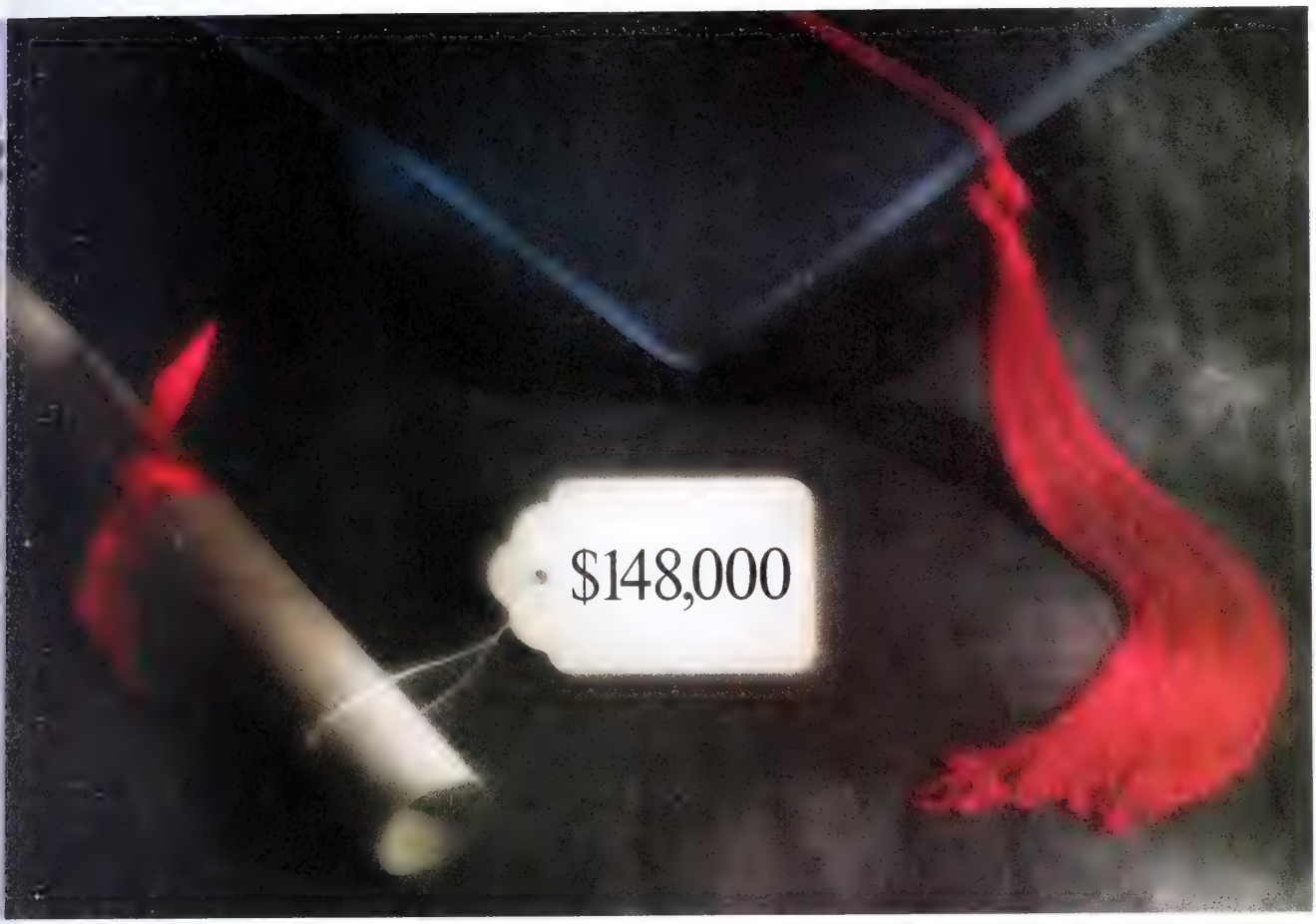
Source: Q.E.D.

Public Schools with New Technologies

Technology	Number of schools with at least one	Percent of schools with at least one
VCRs	79,934	96.2%
Modems	12,015	14.5%
Interactive Videodisc Players (Laser Disc Players)	2,660	3.2%
ILS (Integrated Learning Systems)	1,159	1.4%
CD-ROM	3,201	3.9%
	Districts with satellite dishes	**Percent of all districts**
	2,336	16%
	Schools in those districts	**Percent of all schools**
	19,201	23%

Source: Q.E.D.

Are you ready for this?



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iiversity could cost as much as $148,000. A bachelors
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Saint Cloud Hospital in central Minnesota is a regional medical center serving a population of more than 425,000 in a ten-county area covering more than 7,500 square miles. It's a highly progressive, rapidly expanding institution with hundreds of doctors, comprehensive services, and an attitude of intense human concern. Patients are never numbers, they're people. And they are treated like people. For all its size, Saint Cloud Hospital still feels 'small'.

CARING INTIMACY

The hospital has worked very hard to ensure an environment of caring intimacy, developing many special programs and procedures and investing heavily in technologies that free its people to focus on people.

One current investment is in hundreds of portable and mobile cellular telephones to give the hospital instant two-way communications with its on-call staff. The phones have put doctors and nurses in touch as never before, and have begun to find a wide range of unexpected uses for themselves —like letting emergency room patients reassure loved ones directly from a moving hospital gurney.

SELECTED FUJITSU

Saint Cloud Hospital, working with its service provider, United States Cellular, studied a variety of cellular telephone brands before it finally settled on Fujitsu. It chose Fujitsu not only for the quality of its telephones but for the quality of the company behind them. Fujitsu is one of the world's largest computer and communications companies—a high-tech powerhouse that's a major force in the global information revolution. With 115,000 employees, projects completed in a hundred countries, and manufacturing facilities across the U.S.A., it's a company that's many things to many different people. To the people at Saint Cloud Hospital, it's a giant that's helping them stay small.

Gary Gibson of Fujitsu talks with Bill Becker of Saint Cloud Hospital and Joe Salaski of United States Cellular Mobile Telephone Network. United States Cellular, a nationwide carrier which operates the cellular network in St. Cloud, Minnesota, strongly recommends Fujitsu phones. For information call Fujitsu at (214) 690-6000.

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Technology Today

Vo-Tech Goes High Tech

BY MINDY BOYER

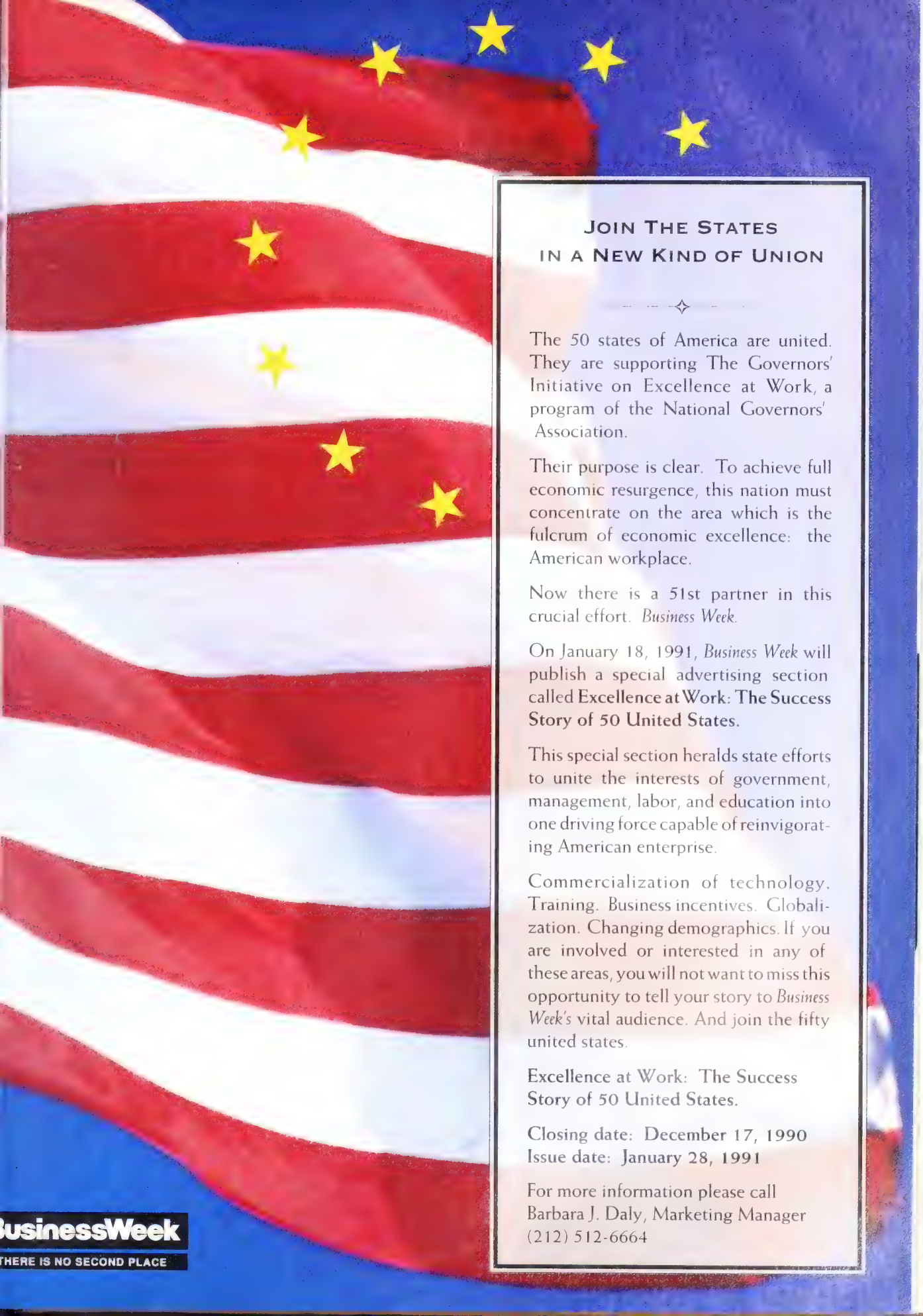
In 1989, Richardson High School in Texas, transformed its traditional vocational-education program into a state-of-the-art electronic school. The contents of its wood shop, metal shop, auto shop, and drafting rooms were auctioned off, making way for a brand new technology-education center. It is used for the study of computer-aided design and manufacturing (CAD/CAM), and systems and integration/problem-solving studies in electronics, pneumatics, communications, robotics, electricity, photography, and computer science.

The new technology center houses audio and video recording studios, a 300-volume technology library, and various computers and electronic components.

Traditional vocational-education programs are designed to prepare students for jobs that existed years ago, but they are not applicable to the current job market. About five years ago, the State of Texas recognized that courses such as metal shop and auto shop were outdated; it was time to prepare students for the future with courses such as Research and Design in Technology, Communications Systems, Manufacturing Systems, and Construction Graphics. However, decisions on defining and implementing the new courses were left up to individual school districts.

The Richardson High School program is a powerful example of what can be achieved when innovative technology programs are guided by responsible, interested leadership — here expressed through an effective business/education partnership. A team of dedicated teachers from the Richardson school district created the program with the intention of preparing students to meet the needs of modern technological businesses. Spearheaded by Industrial Technology Coordinator Dave Pullias, the

This Smartlab and Technology Lab 2000 from Transtech Systems emerse students in state-of-the-art instructional environments.



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group enlisted the support and advice of a task force composed of business people from local corporations.

The teachers asked task force members for help in two primary areas: Defining the scope and speed of the transition to new technology, and outlining the employee skills today's corporations find most useful.

> ***"Students who enter with the initial junior high preparation are more sophisticated than any students I've ever had."***
>
> KEITH DEJARNATT
> Creative Learning

Together, educators and business people determined that an immediate and complete revamping of the old system would be more effective than slowly phasing in the new program. The business people made it clear that mastering a few, generally applicable skills is more important than learning specific technological systems or software, because such technology rapidly becomes obsolete.

Three essential, widely applicable elements for success in long-term employment were selected to be integral parts of all courses in the new program:

- The ability to re-learn
- The ability to work in groups
- The ability to solve problems

The teachers worked with Creative Learning, a San Diego-based educational technology consulting firm, to develop an appropriate hardware/software selection to meet the goals of their program. They selected a networked Macintosh system, "Technology 2000" through which students can communicate with one another, as well as work independently to solve problems. This core system is supplemented by at least one of just about every type of PC on the market.

The program's two teachers (and cofounders), Keith DeJarnatt and Mike Holland, want students to understand how systems work, rather than specific details. They teach software basics and ask students to further investigate certain programs and then develop projects using particular technologies. Both men say that because technology and software are changing too quickly for teachers (or anyone) to keep up with, they often learn from their students.

Do the kids enjoy the program? They love it. DeJarnatt says that seven to 20 students show up after hours on the three nights and some weekend days he spends at school.

The technology-education program is available to any student in the district. It crosses all cultures and includes special education as well as gifted students. Enrollment in the program has more than doubled since last year. There is also a "feeder" junior high school set up for the program, and, according to DeJarnatt, students who enter with the initial junior high preparation are "more sophisticated" than any students he's ever had.

Given the success of the program at Richardson High School, perhaps

the flattery being expressed by numerous visitors will develop into countrywide adaptations. Richardson's program exemplifies the fruitful results that can accrue when corporate leaders and educators work together to implement technological change.

Mindy Boyer is a senior staff member at Higgins Inc., Boston, Massachusetts.

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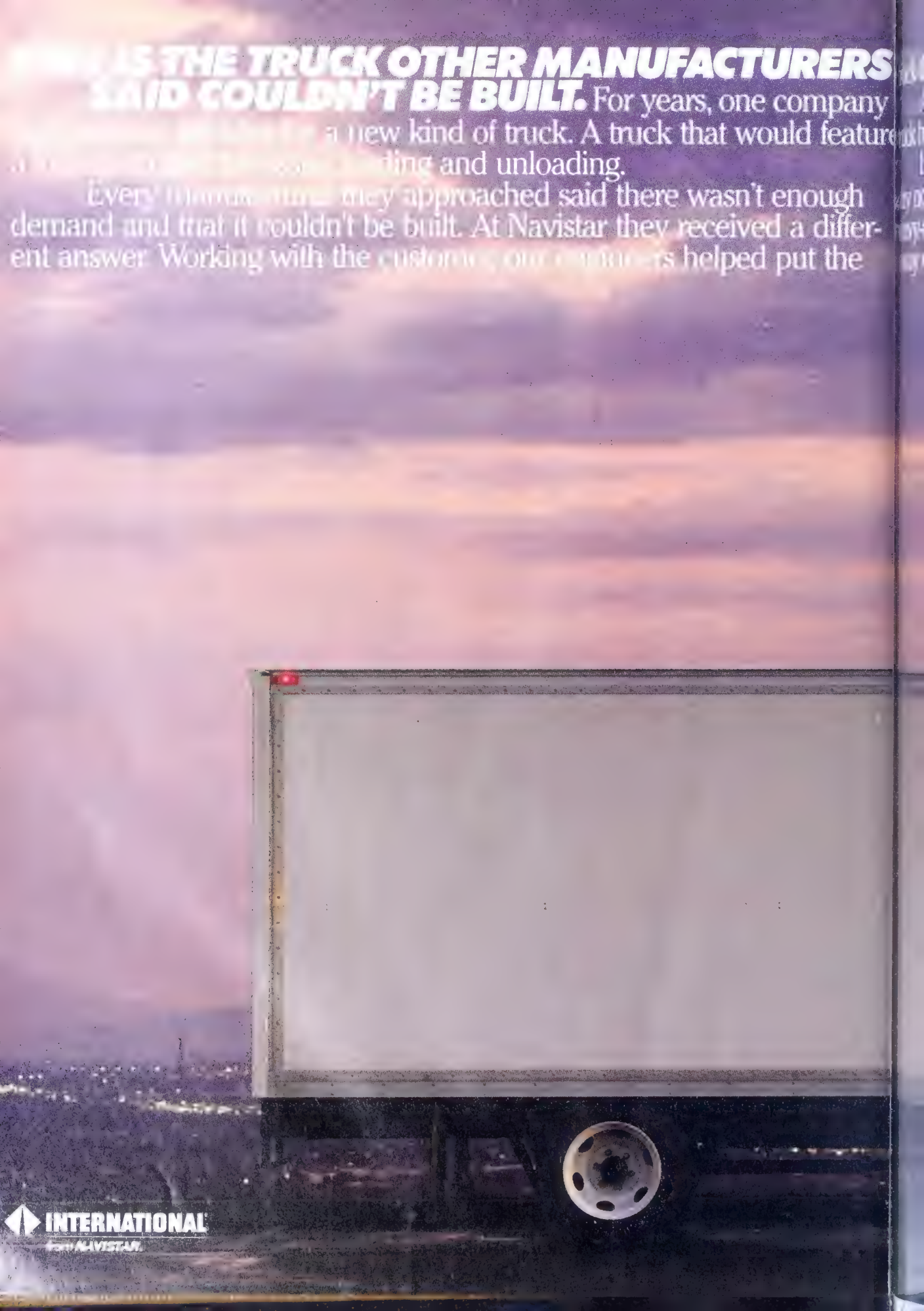
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Technology Today

Student Illiteracy: First Time Right

BY JAMES J. HIGGINS

If a student doesn't read, school isn't much fun and most other learning opportunities are difficult if not impossible. If you haven't learned to add, subtract, multiply, and divide, routine skills such as balancing a checkbook become lifetime challenges, and entire worlds are alien forever.

Of course, children are expected to master these critical subjects by the end of the third grade. If they haven't, disruptive behavior patterns — from discipline to absenteeism — increase sharply in the middle to late elementary school years. It should come as no surprise, then, that young people who drop out of school by their 16th birthday dropped out mentally and emotionally in the fourth or fifth grade.

Learning to read and do arithmetic requires mastering a succession of discrete, but interdependent, subskills. Lack of mastery is cumulative. Textbooks suggest weekly tests. Grading those tests takes more time. Therefore, a teacher may become aware that a student has failed to master a set of skills far after the time of actual failure. Intervention is even further removed. Groups of students within a class of 30 fail to master different skills. Deficiencies accumulate.

This situation leads to "ability grouping," the attempt to segregate students by their deficiencies so that remediation may occur. Now the teacher is off on a race that cannot be won; a race that too many children fail to finish.

Myka Lynne Sokoloff, a textbook and testing consultant to the educational publishing industry, provides some numerical dimensions: "The second-grade sequence of a typical textbook series will require mastery of about 200 discrete skills, depending on the publisher's approach. These skills are divided into areas such as decoding, vocabulary, and comprehension. In an average lesson, intended as a week's instruction, six or seven skills are taught. With 30 as an average class size, in any given week, there are approximately 200 opportunities for success or failure. It's quite an imposing task for a teacher to accomplish in the 45 minutes a day allocated for reading instruction. What's more, if the children come from deprived environments, the challenge is truly awesome."

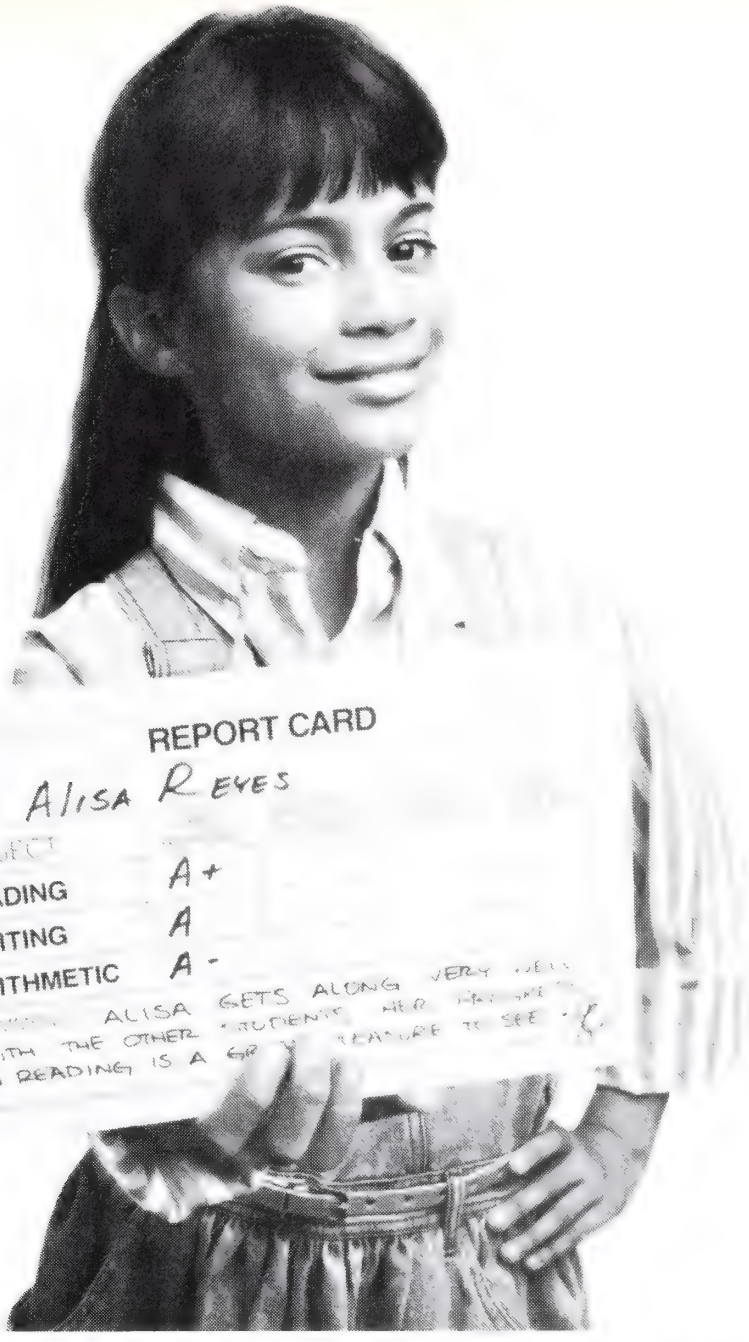
Information Age technology may have a solution. It lies in what Andersen Consulting calls "first time right" learning, a concept borrowed from industrial quality-control programs. The "first time right" concept means "the processes of instruction are changed to ensure that all students are able to meet requisite standards at each stage of the education program."

IBM's Writing to Read™ programs allow students to learn at their own speed.

Computer-managed instruction programs enable teachers to monitor each child's mastery of every skill in even the most complicated processes, such as learning to read or do arithmetic. Children in programs such as IBM's "Writing to Read" have individualized learning pathways. Each skill is taught and retaught until it is mastered. No new skill is introduced until the previous one in the sequence is mastered. There is no accumulation of deficiencies. There is no remediation. There is no failure. This is the kind of technology that makes learning exciting, according to James Dezell, head of IBM educational marketing.

Teachers in such systems are the intervention of last resort. Based on daily reports, a teacher can determine immediately that a student is stymied. The teacher can then work with the student one-on-one, apply personal expertise, then send him back to the system for refinement.

Most of the teacher's time can be used to perform far more interesting, and in many ways more valuable, tasks than basic-skills instruction, which a computer — with its engaging graphics and infinite patience — can do better and with greater efficiency.



Another set of ratings PBS considers important.

You don't have to be in television to appreciate these numbers. Good grades and learning are something everybody cares about.

For more than two decades, Public Television Stations have been providing kids and adults with a wide range of entertaining and educational programs. Like Sesame Street, Reading Rainbow, NOVA and The American Experience. As well as noncommercial educational programs that go to 29 million kids for use in the classroom. Every program encourages kids to have fun while they learn. And making learning fun is a very effective teaching aid.

Just ask their teachers. They'll tell you public television programs have a big impact on the early learning process. The kind of impact that translates into performance in school.

But primary education is just the beginning for PBS. Learning is a lifelong process. That's why we also offer literacy training and continuing professional education. And that's why colleges across the country give credit for watching Public Television.

At PBS, we're committed to education in America.

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PBS

Committed to the educational power of television.

Technology Today

Ally Against Adult Illiteracy

BY JAMES J. HIGGINS

Nearly 30 million Americans — one-fifth of this country's adult population — are illiterate. They cannot read a daily newspaper, a telephone book, or a utility bill. They can't write a check or understand the warning label on a package of cigarettes.

Illiteracy is excruciatingly embarrassing in human terms and enormously costly in economic terms. Overcoming it requires courage, persistence and opportunity. In 1986, the federal government spent $100 million on the Adult Basic Education program. The program targeted only 5% of the illiterate population and 40% of those enrolled in the program did not complete it. But returning to school, the source of painful memories of failure, is a daunting experience for many.

As a result, corporations spend $30 billion annually on basic skills training for employees. Many have turned to education technology-based systems to improve productivity and employee effectiveness. In January 1990, one such corporate adult literacy program was chosen as President Bush's 51st Point of Light: Entergy Corporation's mobile automated learning labs program (MALLs).

Learning in the MALL

The program is one of the most innovative of its kind and targets states in its corporate territory — Arkansas, Louisiana, Mississippi. The labs, 28-foot vans equipped with eight to 12 workstations, take the solution to the problem. Entergy establishes partnerships with community-based education agencies that commit to a five-year literacy-skills program and the achievement of a set of performance standards in return for equipment and software. At the end of the fifth year, the mobile learning labs become the property of the community partner. In cooperation with the education partner, businesses use the labs to upgrade employees' skills as well.

The labs are developed by Centec Learning Systems of Jackson, Miss. Centec equips and furnishes the vans and provides the software. In addition to literacy skills, the software includes reading, mathematics, and language-arts instruction. Moreover, students in the program may earn a General Education Development certificate, the equivalent of a high school diploma.

Centec software is not recycled elementary programming; it is created specifically for the adult who has come late to literacy. For those who cannot read or write, the program includes a touch-sensitive interactive video system on laserdisc. This system allows students to follow the program simply by touching pictures on the screen. The strength of the system is in its focused, personalized instruction: On-camera, human tutors build working relationships with the learner. These private interactions between the student and the system spare the embarrassment that prevents so many illiterate adults from seeking help.

Education Put in Its Place

Entergy is a New Orleans-based utility holding company, and its attitude about community education programs parts company with traditional corporate thinking. According to J. Hugh Nichols, director, Economic Development: "Because the correlation between economics and education is so strong, Entergy, rather than locating education programs in a public relations department, has put them in its economic development department. We recognize that a literate work force is critical to any employer's profitability. And an educated population is critical to any country's standard of living."

This community/business/education partnership clearly demonstrates that vision and commitment can work wonders. Says Jim Milam, president of Centec Learning Systems: "We're in business to make a profit, but we also intend to make a difference. Those goals can be compatible."

For the adult illiterate, that's news worth reading about.

Literacy is on the move in Centel Learning Systems' computer-equipped vans, which are donated to communities that establish formal literacy-skills programs.

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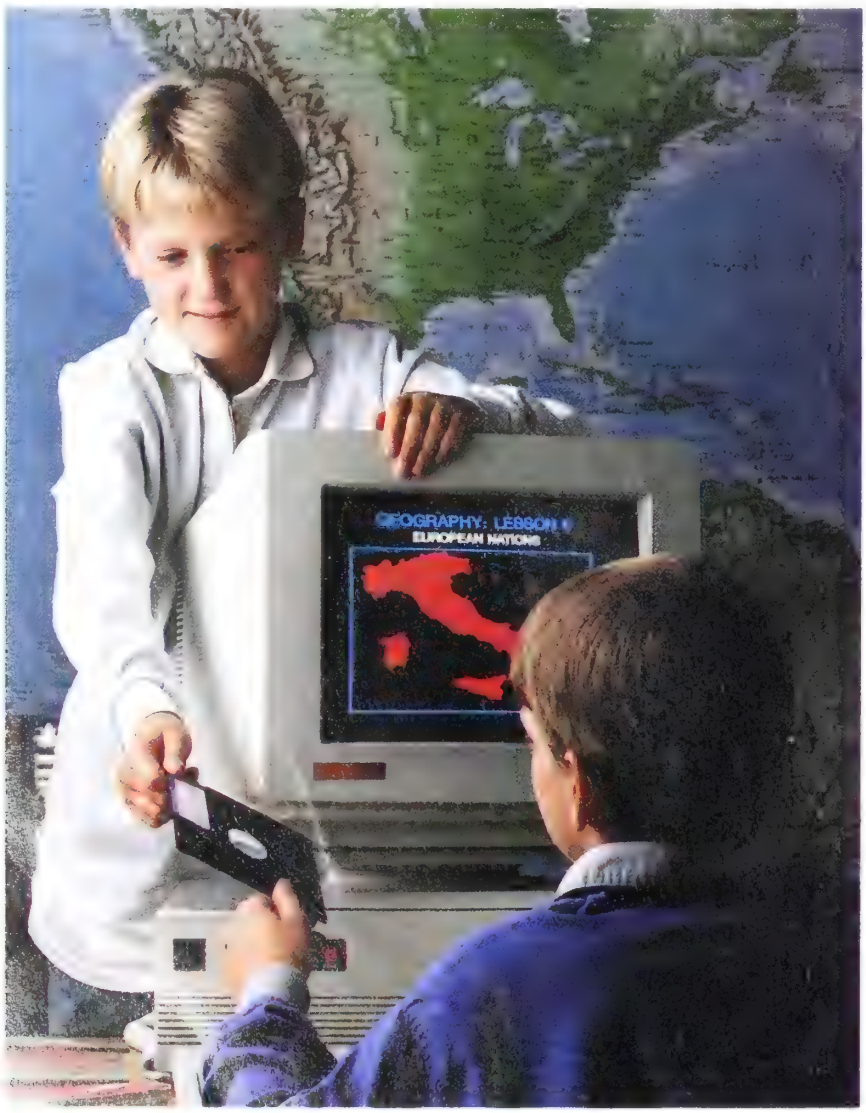
Technology Today

Learning About Learning

BY DR. IDIT HAREL

Electronic schools of the future are the ones that emphasize child-based invention rather than rote learning. Or so believes Professor Seymour Papert, mathematician and learning theorist at the Massachusetts Institute of Technology. In his view, the role of technology should be "to help children express themselves more creatively and to satisfy their fascination with how things in the world work." Learning with technology should be a process in which children learn new ideas through active and constructive exploration, experimentation, and invention. Papert calls this approach "constructionism."



An opposing approach to the utilization of technology in schools is its use in facilitating rote learning techniques, for example, math drills. This view of integrating technology passively into the existing classroom supports an approach to learning that Papert calls "instructionism" or "technocentrism." He, with his team of researchers at the MIT Media Laboratory is attempting to replace the instructionist approach by giving children control over their learning with computers, and by making the children — not the computer (or the teacher) — the agents of thinking and learning.

Papert believes that knowledge of computation (such as programming) and of information sciences has a reflexive, synergistic quality: It facilitates explorations of other knowledge. This reflexive quality offers a solution to the problem of adding another component to an already full school day. If some knowledge facilitates other knowledge, then, in a beautifully paradoxical way, more can mean less!

The Model School

Since 1985, Papert's research team, The Epistemology and Learning Group, has collaborated with the Boston School Department to develop a model for a "school of the future" (called Project Headlight) at the James W. Hennigan elementary school in Jamaica Plain. A major purpose of Headlight was to gain an understanding of how a constructionist approach to learning in general — and computer use in particular — could thrive in such a setting; how

Children program animated stories, create graphics and text for research reports and design their own software using LogoWriter.

computers could become the vehicles for educational reform as well as facilitate flexible and creative thinking and the idea that there is more than one "right" way to learn.

At Headlight, children use computers at least one hour a day as an integral part of their homeroom learning activities. There is very little use of "instructional software" and little emphasis on learning about computers and learning programming as ends in themselves.

Children as Software Designers

More specifically, we studied a class of fourth-grade students for a semester as they worked on designing and implementing instructional software dealing with fractions. We wished to give the learner the active position of the teacher/explainer rather than the passive role of knowledge recipient; and the position of designer/producer rather than software consumer. These ideas are consistent with building on the old idea of learning by *doing* rather than by being told (i.e., "constructionism" rather than "instructionism"). Our data proved that using the computer to build a piece of instructional software about fractions is a privileged way for children to engage with fractions by constructing something personal.

Programs such as a "fraction clock" and a house made up of objects divided in halves were devised by the children. They were able to explore and explain fractions in ways that interested them and related to their own lives.

The children's ability to work with fractions improved considerably while working on a project that was self-directed and gave them no "feedback" in the form of marking responses right or wrong. For example, four of the "low" math students, whose scores ranged from 50% to 55% on a fractions test before the programming project, earned scores of 83% to 97% on the same test afterward. Long interviews with the participants demonstrated that they developed a better understanding of and attitude toward fractions, and, perhaps, even came to like them through this constructionist approach.

Headlight uses LogoWriter — the newest version of Logo, the venerable programming language developed by Papert and other scientists at MIT in the early 1970s. Using LogoWriter, children may themselves program animated stories, create graphics and text for research reports, design their own software, or build their own computer games. (Logo and LogoWriter are currently in use at about one-third of the nation's elementary schools.)

Papert believes that "when children build things they love and care about, they learn that learning can be exciting." We believe that the role of technology should be to facilitate this process of excitement in electronic schools — making children fall in love with learning — of helping them think about their own thinking, and of helping them care about the complex products they can create, and will create as productive adults in the 21st century.

Dr. Harel works at the Media Laboratory at Massachusetts Institute of Technology.

The Future

Evaluating Educational Technology

BY DALE MANN

Educational technology is evaluated (and rejected) thousands of times every day as school administrators decide instead to hire teachers and buy books and chalk. Schools grind on with the same 100-year-old technology because they believe it's best. And it *is* good for lots of things. But how much can technology teach? Ask your own children, if you can get them to look up from the Nintendo, turn off the television, or hang up the phone.

Despite an astonishing saturation of electronics in the lives of children, we still lack compelling demonstration of what those devices can produce in education. Private sector training and public school education share many similarities. Tests of Digital Equipment Corp.'s interactive videodisc training systems indicate that people retain 23% of what they hear, 43% of what they hear and see, and 70% of what they hear, see, and *do*. Turning pages in a book does not count as "doing."

The Education Twilight Zone

With interactive systems, industrial training applications can hit what is called the "one-third/one-third plateau": one-third more learning in one-third less time. At AT&T Information Systems, for instance, technicians trained using interactive videodisc consistently master a seven-day course in fewer than four days. In one of the few evaluations that compared the same instructional content on three different teaching platforms (print, computer-assisted learning, and interactive videodisc), disadvantaged young adult learners mastered basic skills twice as fast with the disc lessons (delivered via an IBM InfoWindow) as compared with any other medium.

It is easy to design testing for sim-

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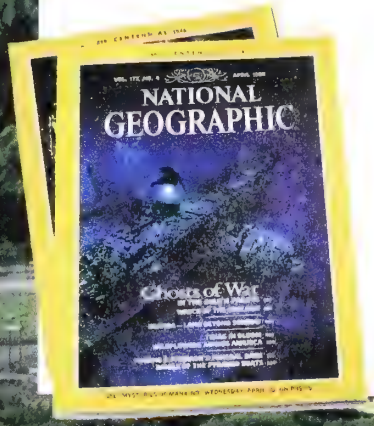

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The Future

What Business Must Do

BY JAMES J. HIGGINS

Fully 91% of all Americans are concerned about the quality of education, according to a recent Roper Organization poll commissioned by the Center for Workforce Preparation and Quality Education. In addition, three-quarters of those polled agreed that public schools are failing to prepare students for jobs now available, and 63% said most students will lack skills for jobs in the future.

"It's interesting to note that the American public considers the business community the education safety net for the nation," observes Edward Donley, chairman of the center, an affiliate of the U.S. Chamber of Commerce.

Indeed, the poll found deep support for increased involvement of business in public schools and in education generally.

The Business Imperative

The poll results, coupled with business's own enlightened self-interest, indicate that the choice for business is no longer *whether* to be involved, but *how*.

Here are five actions business can take immediately:

1. Commit itself as a provider of experienced, focused solutions in the education technology revolution.
2. Inform constituencies — employees, stockholders, customers — of the seriousness of the problem, and don't place blame.
3. Develop an action plan, and publicize it.
4. Appoint a distinguished public school educator to the board of directors. While it might seem astonishing, hundreds of school districts in the United States, such as Dade

County, oversee budgets and employment rivaling those of the largest businesses in their states.

5. Challenge The Business Roundtable to create an award for excellence in school-district management based on the stringent management principles inherent in the prestigious Malcolm Baldridge National Quality Award.

For symbolic as well as practical purposes, each company's effort must be directed by its chief executive officer. After all, education is a company-wide priority and *your* competitive future and your employee jobs are at stake.

A high-level Task Force on Information Age Education, reporting directly to the CEO, should be established. This small group should include, among others, the chief product development management officer and chief financial officer as well as the directors of public or community relations, human resources, and research and development.

The task force should be responsible for the development and implementation of the action plan. Its efforts should be coordinated with school boards and should include: visits to state-of-the-art electronic schools as well as technology-deficient schools; subscriptions to major educational technology and management publications attendance at education conferences and trade shows; regular consultations with teachers, education executives, technology, government, and association experts; and, ideally, hands-on experience with technology in the classroom.

Obviously, the scope of the study and the action plan that results will vary with company size, but local and regional efforts by small and mid-sized companies are just as important as the national efforts of larger organizations.

Opportunities for task force action include:

- support for greater teacher use of technology.
- support for greater student access to technology.
- support for systemic change at the national, state, and school-district levels.
- support for school-based reform and marketplace principles.

With business resolute in its commitment, the electronic schools revolution shall succeed. And in its success, American business will succeed as the formidable (and profitable) worldwide competitor it deserves to be.

But there's not a moment to spare.

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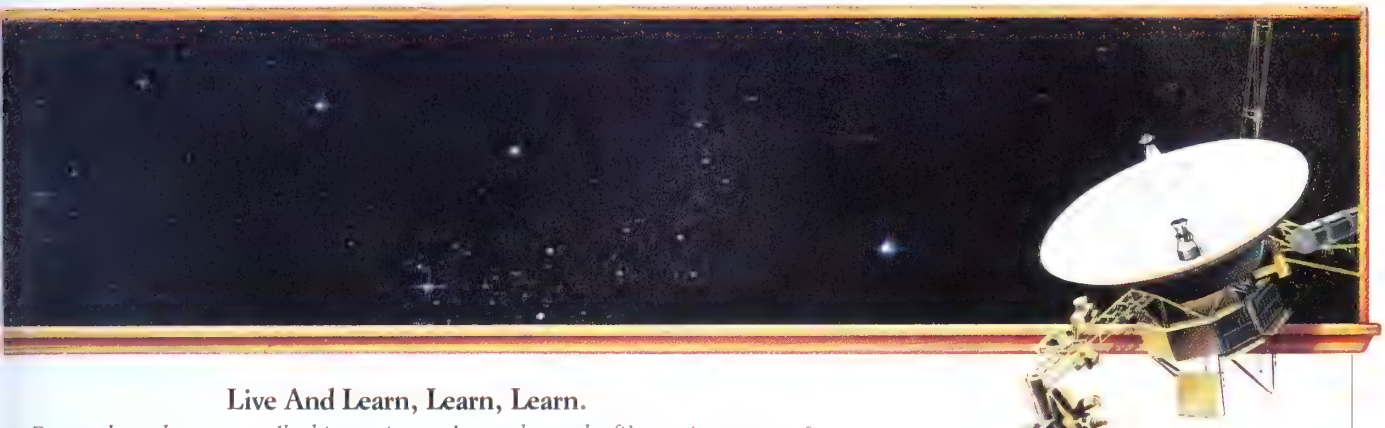

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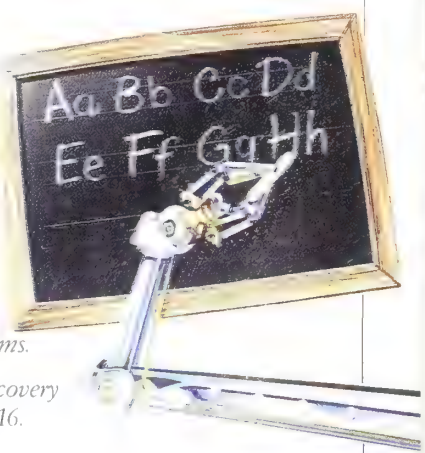

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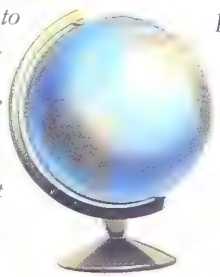

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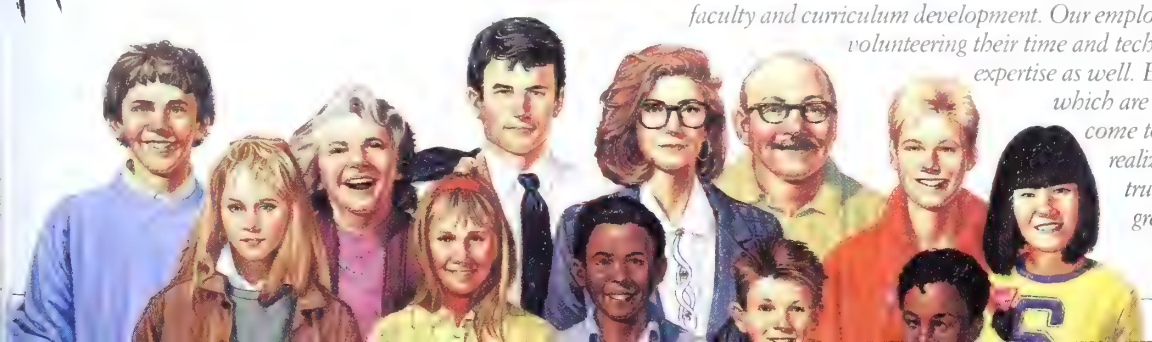
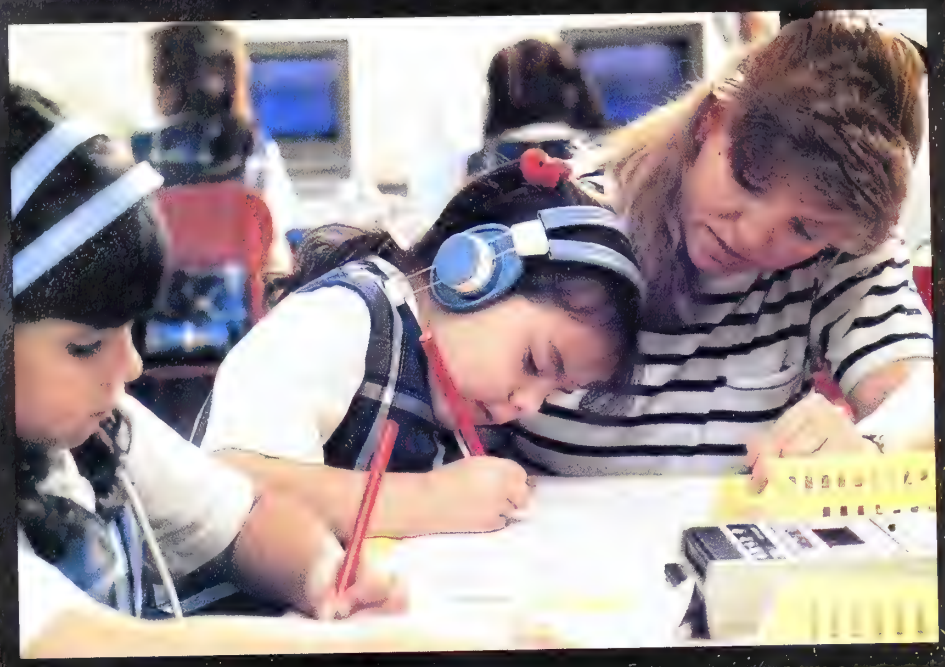
Frankly, supporting education is part of who we are. And that means all of us at Digital Equipment Corporation. Not only are we awarding scholarships and contributing equipment. Partnering with schools across the country. And supporting faculty and curriculum development. Our employees are volunteering their time and technical expertise as well. Efforts which are helping students come to an important realization: that learning truly is one of life's greatest rewards.





American business will compete successfully throughout the world only as long as American education produces a work force that can prevail in a global economy driven by knowledge and skill. We salute our distinguished advertisers who have joined forces with Business Week to illuminate the need for technology-based learning in all our schools. The degree to which the United States succeeds in providing this world-class education for our children will, more than anything else, determine the future of our economic and cultural might. That future is already here. Nothing less than our national fate is at stake.

John W. Patten
Publisher, Business Week

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Developments to Watch

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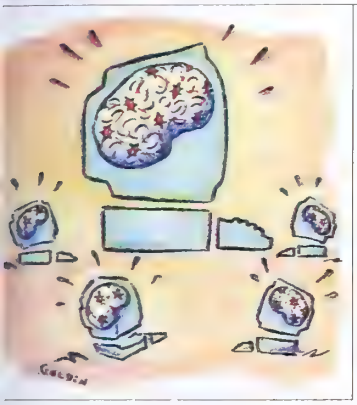
ARWIN MEETS HE COMPUTER



Neural networks are computing circuits modeled after the brain. They regularly amaze scientists with their ability to learn from experience, much as people do. But like humans, neural nets can't explain how they learn. That makes it tough to design the best network for tackling a specific problem.

British scientists figure the answer is to let e circuits do the work themselves. It's an approach outlined *The Blind Watchmaker* by Richard Dawkins: Start with mputer simulations of simple life forms—what Dawkins lls "biomorphs"—and his program will rapidly develop more mplex life-forms. To apply this to neural nets, scientists at itain's Meiko Scientific Ltd. and Logica PLC have teamed th professors at Cambridge and Oxford universities. Their o-year, $500,000 project is already producing tantalizing exrimental results: Some neural-net "families" get progres-ely better at solving simple problems.

HAT'S IN A NAME CHANGE? OR HDTV, GOVERNMENT FUNDING

he White House has been adamantly opposed to any federal role in developing high-definition TV technology—and t year tried to scuttle a Defense Dept. initiative in this area. st about everyone in the electronics industry is equally olute in the opposite direction, believing that HDTV is crucial future U. S. competitiveness in computers, communications, d semiconductors. Congress clearly concurs, judging by the ostantial increase appropriated in the fiscal 1991 budget. To save the Administration some face, though, the technoly isn't called HDTV anymore. Now, it's "high-definition sysns." Under the new budget, the Defense Advanced Rearch Projects Agency (DARPA) is getting $75 million this year HD-video research. That's up from $30 million, spread over ee years starting in 1989. Last year, Congress tacked on million more, but $5 million didn't get spent. So, DARPA w has $80 million to spur development of the technology.

LEANER-BURNING GASOLINE -THANKS TO NATURAL GAS

s the U. S. tries to find alternative fuels to replace foreign oil, energy companies keep eyeing America's reserves of ural gas. Already, companies use catalysts to convert the thane contained in natural gas to chemicals normally de-ed from petroleum—such as ethylene and propylene, which used to make cleaner-burning gasoline. One problem with current processes, though, is that about a third of what nes out is unwanted carbon dioxide, a major contributor to bal warming and the greenhouse effect.

Researchers at Lawrence Berkeley Laboratories now believe y have found a new catalyst that will be much more efficient. A combination of calcium, nickel, and potassium oxide, it converts up to 12% of the methane—with virtually no carbon dioxide—and the unconverted gas is simply piped back through the process again. Another advantage: The process works in a steam chamber at about 600C, or 200C less than competing processes, so less energy is used. Next, the researchers will try to find a better way of making the catalyst: Even small variations in their current procedure can dramatically lower the catalyst's efficiency.

HOW TO KEEP TRUCKIN' IN THE AGE OF JUST-IN-TIME DELIVERY

With growing numbers of manufacturers prodding their suppliers to adopt just-in-time (JIT) delivery, Hoechst Celanese Corp. figures it's time to lift the curtain on a novel concept in trucking. JIT is widely regarded as a major key to the efficiency of Japanese factories. Suppliers deliver their parts to the plant each day, sometimes even every hour, eliminating the expense of keeping large inventories on hand. But that means the suppliers need more trucks shuttling back and forth, and a factory's shipping dock can get jammed when suppliers converge.

One solution: soft-sided trailers that dramatically speed up loading and unloading—which means a supplier needs fewer trucks, because they spend more time on the road. The "soft" sides open like window drapes, thanks to a special, heavy-duty plastic developed by Hoechst Celanese. In rollover tests, it proved strong enough to keep even heavy steel shipments from spilling. In Europe, where curtain-side trailers are already popular because unloading room is usually tight at factories, stores, and other delivery points, some suppliers send the trailers straight to the factory floor. Utility Trailer Manufacturing Co. in Walnut, Calif., is in the vanguard of American trailer makers promoting the idea.

A WAR CORRESPONDENT WITH WINGS

The scenario: War breaks out in the Persian Gulf. Tanks surge across enemy lines. Marines slog ashore on Kuwaiti beaches. But frustrated TV newscasters can't get their cameras to the action. That's the cue for Chuck de Caro.

A former Green Beret and ex-Cable News Network correspondent, de Caro thinks there's a future in aerial high-tech journalism. His Herndon (Va.) company, Aerobureau Corp., has a 29-year-old Lockheed Electra plane, outfitted with the latest in radar and communications technology, to get to the news—quickly and safely. When things get sticky, Aerobureau can deploy a small fleet of remotely piloted vehicles, or RPVs, that carry TV cameras. Controlled from a safe distance by the mother plane or a ground crew, a midget RPV-TV could fly over the battlefield, relaying pictures up to a satellite link.

Sure, says de Caro, "they could shoot down my $25,000 RPV with a $75,000 missile. But we'd come back with a $1 million videotape." He proved his robot-plane idea works at a mid-November test. Now, he's waiting for the networks to sign up.

BP

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THE COSTLY RACE CHIPMAKERS CAN'T AFFORD TO LOSE

Whoever is first with the next generation of memories will have a crucial edge in everything electronic

Imagine tiny voice recorders that don't need magnetic tape. Powerful laptop computers without disk ives. Desktop machines that do prob-ms once reserved for mainframes. And aphics that are 20 times sharper than day's best printed pictures—even ien presented in full-motion video. Sound far out? Engineers at the orld's leading semiconductor compa-es are starting to develop the dynamic ndom-access memory chips (DRAMs) eded to achieve such advances—the ost daunting task ever tackled by chip signers. At Toshiba Corp.'s Research Development Center in Kawasaki, Ja-n, researchers are looking for ways to h the equivalent of a street map of world on a thumbnail-size sliver of con. Within weeks, the team, led by jio Masuoka, expects to unveil a pre-inary design for its version of the st advanced computer memory chip r—one that can store 64 million bits data. That's around 16 times the ca-ity of today's advanced chips.

Toshiba is one of about a dozen chip-kers in Japan, the U. S., and Europe ambling to build the first 64-megabit AM and snatch a piece of the biggest chip market yet, with sales of perhaps $50 billion in the late 1990s. By then, sales of the products that contain these chips—including computers, laser print-ers, and fax machines—could reach $2 trillion, according to Texas Instruments Inc. The companies that take the lead in 64-megabit memories will gain a big edge in those markets, especially since they'll be able to apply the advanced manufacturing techniques developed for high-capacity DRAMs to other types of chips. "More and more of a computer's function is migrating to the silicon," says IBM President Jack D. Kuehler. "So getting to the marketplace [first] with the latest chip technology determines the competitiveness of my box."

The fabulously expensive battle over the 64-megabit chips is shaping up mainly among IBM and Japan's Big Five: Toshiba, Hitachi, NEC, Fujitsu, and Mitsubishi Electric. U. S. semiconductor companies invented DRAMs. But in the 1980s, as new generations were developed at the rate of about one every three years, Japan's electronics giants took control of the commercial market. Today, Toshiba has the commercial sales lead both in 1-megabit chips and in 4-megabit chips, which are just reaching customers in volume. And chipmakers are straining to deliver the first shipments of next-generation, 16-megabit memories, which are expected to arrive next year.

But IBM, which doesn't sell its chips on the open market, has long been the technology leader. It was shipping finished computers with "1-meg" memories before such chips were available in volume to other computer makers, for example, and it is determined to stay ahead. So intent is IBM on this that it has teamed up with Germany's Siemens to speed the development of 64-megabit chips—and to share the huge costs of the project. "Since prices drop like a brick as production comes on, you must be first to market," says Jurgen Knorr, Siemens' semiconductor chief. "If you're a year late, you'll never catch up."

IBM isn't saying when its 64-megabit design will be ready, but Japan's Big Five aren't giving it much slack. By late 1993, "all five Japanese manufacturers will be shipping 64-megabit samples," says Masaki Ogawa, assistant general manager of NEC Corp.'s Microelectronics Research Laboratories. They can move fast partly because Japanese semicon-

4-MEGABIT CHIPS

Chip capacity	4 million bits of data
Narrowest circuit line	0.8 microns
Fabrication plant cost	$350 million
First chip samples	1988
Technology leaders	IBM, Toshiba, Hitachi, NEC, Fujitsu
Peak-year sales	1994 $10.5 billion

NEW TEAM: SIEMENS AND IBM WORKERS IN A BIG BLUE CLEAN ROOM

64-MEGABIT CHIPS

Chip capacity	64 million bits of data
Narrowest circuit line	0.25
Fabrication plant cost	$750
First chip samples	1994
Technology leaders	IBM, Toshiba, Hitachi, NEC, Fujitsu
Peak-year sales	2000 $25

DATA: DATAQUEST, TEXAS INSTRUMENTS

ductor equipment makers test their newest machines in Japanese chip plants for up to a year before the equipment goes on the open market.

The U.S. electronics industry hopes that Sematech, the semiconductor-technology consortium, can foster the same type of collaboration (box). But chipmakers are also hedging that bet. Motorola Inc. relies on an alliance with Toshiba for much of its DRAM R&D—though a similar deal between Motorola and IBM is rumored to be in the works. And Texas Instruments has a technology arrangement with Hitachi Ltd.

Such deals help spread the expense of developing the 64-megabit memory chip's design and production technology, which is estimated to range from $600 million to $1 billion. Assuming that a company stays in the game by coming up with the right technologies, it will have to invest an additional $600 million to $750 million on a plant to produce up to 10 million chips a month—up to three times the cost for a 4-megabit plant. And that should win it about 10% of the projected world market.

Japan's integrated electronics giants are perhaps best positioned to shoulder such spending. Relatively immune to worries about quarterly earnings growth, they can invest for the long term. In fact, the Big Five are pouring millions into various design and manufacturing alternatives. "The more candidates you have, the better," says Toshiba's Masuoka. All of the Japanese contenders are expected to disclose initial 64-megabit chip designs at the annual International Solid State Circuit Conference in February.

Perhaps the most critical technical problem in getting those designs to market will be developing improved lithography. Circuit patterns are printed on a silicon wafer by coating it with a photosensitive material and then projecting ultraviolet (UV) light through lenses and "masks"—in essence, extremely complicated stencils. Higher-capacity chips require finer circuit lines.

LIGHT TOUCH. For 64-megabit chips, engineers are striving for circuits less than 0.35 micron wide—about 4/1000th the diameter of a human hair. Printing such intricate patterns will require a special light source, since the wavelength of the UV light that is used now can't make sharp circuit patterns that fine.

Many experts had thought that 64-megabit chips would require a radically different source of energy like X-rays or electron beams. But that may not be necessary. Suppliers of optical-lithography gear such as Nikon, Canon, and Hyland's ASM Lithography are proving amazingly adept at developing systems using tiny-wavelength "deep UV" light. Japanese makers say they're leaning toward this so-called I-line equipment.

Kuehler thinks IBM will opt for a different approach—one that generates deep-UV light with a laser and focuses the light with a new type of lens system that prints faster than other methods. The technology, called Micrascan, was developed with Perkin-Elmer Corp. and cost of more than $100 million. Perkin-Elmer found that burden so taxing that earlier this year it sold control of its lithography-equipment division, now called SVG Lithography Systems Inc., to Silicon Valley Group Inc. and IBM.

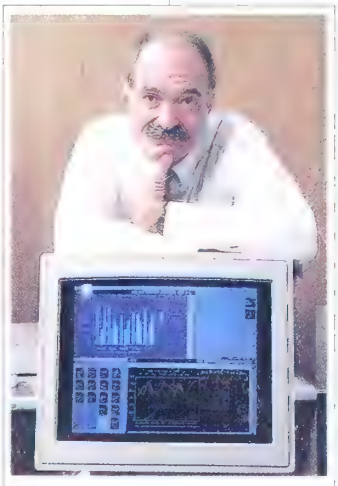
Japanese chipmakers are skeptical of IBM's approach. "The [Micrascan] optics are extremely complex," says Masao Hasugi, an assistant general manager at Canon Inc.'s Semiconductor Production Equipment Group. "I doubt it will ever see actual use." Still, IBM is using Micrascan machines to make prototype

SEMATECH MAY GIVE AMERICA'S MIDDLEWEIGHTS A FIGHTING CHANCE

Forty months ago, 14 worried U.S. electronics companies decided it was time to end the animosity that regularly pitted computer makers against semiconductor suppliers. With the backing of the Defense Dept., they formed Sematech, a research consortium based in Austin, Tex. Its goals: to pool resources for precommercial research, to infuse America's small chipmaking-equipment companies with sorely needed cash, and to leapfrog Japan's chipmaking prowess by 1993. That's the deadline for developing the knowhow to build a 64-megabit dynamic random-access memory chip (DRAM).

The point isn't to build DRAMs, though. Almost all U.S. chipmakers got out of that business in the early 1980s, routed by Japanese dumping. That soon led to a bigger problem: Abandoning DRAMs sapped some of the frenzied drive to shrink the size of integrated circuits, and the U.S. began to lose its edge in other types of chips as well.

Sematech hopes to reverse those declines by not only matching but surpassing the pace of DRAM technology in Japan. And the project is starting to bear fruit. Half of Sematech's annual $200 million budget is funneled to equipment makers. The winner of one of last year's development contracts, Genus Inc., unveiled its initial results in September: a machine that deposits atoms from a gas of vaporized metal to create circuit connections as tiny as 0.4 micron across—far thinner than a human hair.



PRESIDENT SPENCER: "WE'RE SEEING A CHANGE OF HEART"

Last summer, GCA Corp. introduced a crucial new piece of equipment—a so-called stepper that "prints" circuit patterns down to 0.5 micron. Thanks to Sematech funding, the machine's debut came a year ahead of schedule. GCA quickly bundled a unit off to Sematech, which has set up a fabrication line that can turn out chips with 0.5-micron lines. Says Sematech's new president, William J. Spencer: "We wanted to prove that you can make state-of-the-art circuits using all U.S.-built equipment."

Yet new technology is not the consortium's major achievement, adds Spencer, who took over in November after leaving Xerox Corp.'s top technology post. "The biggest thing coming out of Sematech is the way equipment suppliers, semiconductor manufacturers, and systems houses are working together" instead of pointing fingers when something goes wrong.

Now, the group is thinking about life after 1992, the date of its last $100 million federal subsidy. "We're putting together the next stage—what we call Sematech 2," says Spencer. It may involve technologies needed to make chips with 0.1-micron lines—small enough to put a supercomputer on a chip.

Achieving that will test Sematech's new spirit of collaboration. "But if we don't pull together and do business differently," says Spencer, "we're going to go out of business."

By Otis Port in New York

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16 megabit DRAMs and has ordered more for mass production and 64-meg work.

The other big debate in DRAM technology is over how to make the basic memory cells, or capacitors, that store information. In closely packed circuits, these capacitors must be turned on edge to amass enough metal to hold the electrical charge that represents data. The question is whether to build such three-dimensional structures by piling microscopic stacks on the chip's surface or to place the stacks in tiny trenches.

PRISTINE PLANTS. And the right design is only half the battle. This generation of chips will require the most sophisticated factories ever built. "Most people just don't understand the dimensions that we deal with," says George H. Heilmeier, chief technical officer at Texas Instruments. The air in today's clean rooms—the assembly lines where chips are etched—must have fewer than 30 airborne particles per cubic meter, each no bigger than 0.3 micron. But that many impurities would gum up a 64-megabit DRAM plant. It will tolerate no more than five particles of 0.1 micron each. "It just gets mind-boggling," says James W. Bagley, president of Applied Materials Inc., a Santa Clara (Calif.) supplier of chipmaking equipment. "We can't even *find* a 0.1-micron particle today." And designs that seem an elegant solution to a scientist could give a production engineer fits. Says Kiyoo Itoh, chief researcher at Hitachi's Central Research Laboratory: "We can envision a severe struggle with our factory people in the near future."

Production-equipment makers are developing systems that minimize contamination by moving the wafers by magnetic levitation in vacuum conduits. The companies are also trying to integrate several processes in one controlled-vacuum unit. Such manufacturing requirements could give the Japanese a big advantage. They have "automated their plants more aggressively," says Steven W. Myers, an analyst at Jardine Fleming Securities Ltd. in Tokyo. "Getting high yields depends on your ability to execute a much larger segment of your operations without a mistake."

The 64-megabit memories may mark the end of an era in semiconductors. Many industry insiders think these chips will be the last to be printed with optical technology. The next generations—256-megabit DRAMs and then 1-gigabit chips—will probably require radically different technology like X-ray lithography. That's a challenge that should keep researchers working into the 21st century—on chips that will hold the equivalent of a sidewalk map of the world.

By Robert Neff in Tokyo, with Otis Port in New York, Jonathan B. Levine in Paris, and bureau reports

People

FILMMAKERS

TWO MEN AND A LITTLE SAVVY

Field and Cort are building a billion-dollar Hollywood pool—of cas

One, an heir to the Marshall Field fortune, turned his back on the family business to become a racing-car driver. The other, an ex-CIA employee, spent the early years of his career at McKinsey & Co., where he once worked up a marketing plan for Extra-Strength Excedrin. But to look at them now, it would be hard to say which is which. Wearing a brown suit and tie, Frederick W. "Ted" Field sits behind a 12-foot-long desk monitoring a battery of computer screens that flash stock prices. The former CIA man, Robert Cort, can be found in jeans and sockless loafers in a tiny office cluttered with stacks of scripts and movie memorabilia.

Another odd couple in La-La Land? Maybe so, but the partnership has produced some of Hollywood's bigger hits in recent years. Since Field, 38, and Cort, 43, teamed up in 1985, Field's privately held Interscope Communications has delivered a string of moneymakers, including *Cocktail*, *Bill and Ted's Excellent Adventure*, and *Three Men and a Baby* (table). A sequel, *Three Men and a Little Lady*, is off to a promising start, with $19 million in receipts in its first five days. Interscope's $750 million in ticket sales worldwide puts Cort and Field among Hollywood's largest independent producers.

'PARANOIA.' Now, they have a chance to move to the top. In what is potentially the biggest deal ever struck by an independent producer, Interscope in September allied itself with Japanese giant Nomura Securities Co. and Walt Disney Co. for a movie-funding pool that could reach $1 billion. The money will provide unprecedented freedom. Instead of searching out backers for every film, Field and Cort have the money to make any movie they choose. Should Disney pass on any particular project, the two have the option to take it to another studio. Nomura is now raising the pool from Japanese investors, and Disney promises to match whatever Nomura produces. Each has pledged a minimum of $50 million, and Field says they could contribute up to $500 million apiece before the deal is complete.

Of course, money alone won't guarantee success. Filmmaking costs are sk rocketing, making it harder to turn profit. *Three Men and a Little Lac* cost $30 million to make, vs. $13 millio for *Three Men and a Baby*, released 1987. A soft climate for moviegoir won't help, either. But Field says he h a healthy awareness of the downsid "We operate out of a total sense of par noia about screwing up," he says.

INTERSCOPE HITS

Hollywood producers Robert Cort an Field, with characters from their lates release, *Three Men and a Little Lady*. The two have made 17 films since 198 Their biggest box-office hits:

OUTRAGEOUS FORTUNE 1987 **$52.8 million**	**COCKTA** 1988 **$77.3 million**
REVENGE OF THE NERDS, PART II 1987 **$26.3 million**	**BILL AND TE EXCELLEN ADVENTU** 1989 **$40.4 million**
THREE MEN AND A BABY 1987 **$167.7 million**	**BIRD ON A W** 1990 **$70.1 million**

DATA: EXHIBITOR RELATIONS INC

Although Field owns Interscope an has the title of chairman, Cort, the com pany's president, is more the moviemak er these days. He looks at dozens o scripts each month, and it's essentiall his instincts that dictate which movie are made. Field used to get just as in volved: He spent 45 days on the set o *Revenge of the Nerds*. But he devote most of his time now to a multitude o other interests, including rock 'n' roll re cording and $100 million in real estat

ldings. Nomura executives say, how-
er, that Field's reputation as a suc-
ssful investor plays a big role in at-
cting capital to the current deal.
Even by Hollywood standards, Field
lowed an improbable path to Tinsel-
vn. At age 14, three years after his
ther was divorced from Marshall
ld IV, he left Chicago for Anchorage,
aska. There, his mother, Kay, and
pfather, Larry Fanning, ran the *An-
orage Daily News*. Kay was a strict
ristian Scientist and made sure her
attended twice-weekly services. But
ld rebelled. He dropped in and out of
veral colleges, never earning a degree,
d spent several months roaming the
ntry atop a Harley. He also began
ing cars on the professional circuit:
part of a three-man team, he won the
ytona 24-Hour Pepsi Challenge in
1979. But by 1982,

earlier racing injury that mangled his
t hand compelled him to quit racing
d move into business.
That's not to say that Field settled
wn. Several years earlier, he had in-
rited nearly half of his father's for-
ne. The estate, the family-run Field
terprises, included the *Chicago Sun-
nes*, UHF television stations, *World
ok Encyclopedia*, and Cabot, Cabot &
rbes, a Boston real estate company.
e department stores had been sold a
decade earlier. But by 1984, Field had a falling-out with his half-brother, Marshall Field V, and forced a sale of Field Enterprises. Field reaped over $260 million, which he has since more than doubled. He made $90 million buying and selling film-processor Panavision and raked in millions more by investing in Sir James Goldsmith's raids on Goodyear Tire & Rubber Co. and BAT Industries PLC.

But what really captured his interest was film. In 1984, Field used some of the $260 million to finance his first film, *Revenge of the Nerds*, a modest hit. His second effort, *Turk 182!*, flopped miserably. But in making the film, he met Cort, then a top production executive at Twentieth Century-Fox Film Corp.

Like the man who hired him, Cort had a background in business. After graduating from the University of Pennsylvania's Wharton School, Cort spent three years at the Central Intelligence Agency, helping to plan its spy-satellite surveillance. From there, he went to McKinsey, and then to Columbia Pictures Entertainment Inc., after doing some consulting work for the studio. He rose in three years to head its marketing and advertising departments and then jumped to Fox, where he moved into production. Cort was known there for reviving a faltering project that became the hit film *Romancing the Stone*.

He did some reviving at his new job as well. When Cort joined Interscope in 1985, it had lost $10 million in four years. He cut overhead and brought in new projects. His CIA experience became the premise for *Outrageous Fortune*, a comedy-thriller about two women in love with a double agent. A former girlfriend, traveling in France, told him about a French film, *Three Men and a Cradle*, that was then Americanized into the blockbuster comedy *Three Men and a Baby*. With Disney financing most of the movies, production increased along with profits. Recalls Cort: "The idea was to risk some of Ted's money, but not to risk too much."

Although he doesn't have equity in it, Cort still does plenty well at Interscope. Besides a high-six-figure salary, he gets yearly bonuses that associates say have topped $1 million. He mixes comfortably with the top echelon of Hollywood stars and directors and is married to one of Hollywood's leading agents, Rosalie Swedlin. The couple owns two houses near Los Angeles—one with 21 rooms, which they bought in 1988 for $3.8 million.

But when it comes to conspicuous lifestyles, Field is the hands-down winner. In addition to a chalet in Aspen, Colo., and a 40-acre ranch in Santa Barbara, Calif., he owns five homes within 25 miles of L. A., including Green Acres, a 77-room mansion that he bought for $6.5 million in 1986 and is now trying to sell for $55 million. He and his third wife, Susie, have taken on the role of social activists by throwing parties for environmental causes and AIDS research.

MUSIC MAN. Field's cash hoard lets him indulge personal passions in a big way. An amateur chess player, he underwrote half the costs of the recent $3 million world chess championship between Anatoliy Karpov and Garri Kasparov in New York. His latest infatuation is with music. A onetime garage-band drummer, Field launched the Interscope Records label last year. He already has seven rock 'n' roll or rap acts under contract, and he recently signed Atlantic Recording Corp. to distribute their efforts.

The biggest payoff may still come from films. Hollywood insiders say that instead of the 10% filmmakers generally get from studios that back their films, Interscope has been promised a 20% cut of profits. That's a big boost, but Nomura and Disney appear confident that their deal will pay off. "We went looking [for] who was making the hits," explains Richard Koffey, managing director of Babcock & Brown, a U. S. Nomura subsidiary. With an outrageous fortune on the line, Bob and Ted's next adventures had better be excellent.

By Ronald Grover in Los Angeles

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Suzanne Azar
Mayor
El Paso, Texas

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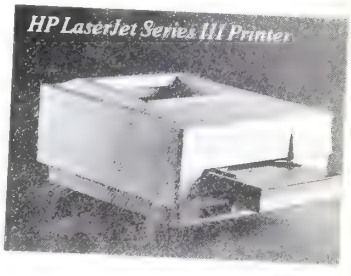

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FAREWELL, FAST TRACK

PROMOTIONS AND RAISES ARE SCARCER—SO WHAT WILL ENERGIZE MANAGERS?

If you're a fast-tracker aiming to nab the top job one day, you know you should model your career after that of the current boss, right? Well, guess again. At Du Pont Co., Edgar S. Woolard Jr.'s dash up the ladder took him through a dizzying 20 jobs in 32 years. The longest he spent in any one position was three years; the shortest, five months. But the 56-year-old chief executive's successor—whoever he or she is—isn't likely to be someone who zipped through so many posts.

That's because there are a lot fewer promotions to go around. In 1985, the chemicals giant led the parade of big companies making deep cuts in work forces. With employment now slashed by 12,000, to 145,800, the $36 billion company has a flatter organization chart and shorter chains of command. In a late-September streamlining, Du Pont even eliminated its executive committee, a group of top managers who ruled the company for decades. The group also was the pool from which Du Pont drew its CEOs. With the changes have come less upward mobility and smaller raises. The result: concern among Du Pont's top managers over how to motivate their stars now that the traditional incentives and rewards have grown scarce.

SO MANY BOOMERS. Welcome to the Slow Track. Throughout Corporate America, companies are advancing managers less often, even as they demand more of them. The thinning of middle-management ranks nationwide has been profound. U. S. companies have eliminated nearly one of every four such positions since 1980, estimates Ross A. Webber, a management professor at the University of Pennsylvania's Wharton School. "In the heyday of expansions in the late 1960s and early 1970s, fast-trackers were being promoted every 18 to 24 months," Webber says. "The length of time has at least doubled."

Pay prospects have dimmed, too. Middle managers starting a career in 19[illegible] could have expected to nearly triple their salary in 10 years, says Ira T. Kay, a managing director at Hay Group Inc. a management consultancy. Today's typical managers will be lucky to double their pay by 2000. Worse, the slots and raises are dwindling just as the number of aspirants jockeying for them is ballooning. At a median age of 33, the 81 million baby boomers are beginning to clog the ranks of management.

Most companies haven't yet figured out how to keep their hard-chargers energized as reality sets in. Nearly 70% of the respondents to a recent survey of 700 managers complained that they were

HOW TO KEEP MANAGERS MOTIVATED

The steady pruning of middle management presents many companies with a problem. Fewer layers mean fewer promotions for promising young managers. A more sluggish economy means less money for raises. So how can companies keep people happy, hard-working, and creative now that the traditional career ladder has lost many of its rungs?

TURN OVER MORE RESPONSIBILITY Offer managers more to do—more people to supervise, more areas to influence. Greater control can be more meaningful than a loftier title or even more pay.

OFFER LATERAL MOVEMENT It used to be a way to ease managers out. Now it's a way to round them out with fresh challenges. But handle with care: Make it clear that sideways moves aren't a dead end by offering them both to stars and to journeymen.

TIE RAISES TO PERFORMANCE, NOT SENIORITY Reduce the number of pay grades to get maximum flexibility in giving raises. That makes it easier to reward people for results, even without an upgrade in title. And broader pay bands pose fewer obstacles to people who want to move across divisions. Don't worry if younger top performers take home more than the seasoned folks who have simply logged the hours.

issatisfied both with their responsibilies and attainments, according to the urvey's sponsors, recruiting firm Korn/erry International and the University f California at Los Angeles. "There is a rudging awareness and acknowledgent that there is a slowing down, that rganizations are flatter, and that there re fewer levels to go to," says Harold . Johnson, a Korn/Ferry managing ce-president. "The younger managers I e are not very happy about it." Such titudes, Johnson says, are making mpanies worry about how to keep eir hotshots "tuned in and turned on." That's likely to become an even more ressing concern as the U. S. economy ips into recession. The management dder is losing still more rungs as comnies ranging from investment banks computer makers, broadcasters, and rlines take the ax to their work forces. nd as austerity settles in, raises and nuses are being further squeezed.

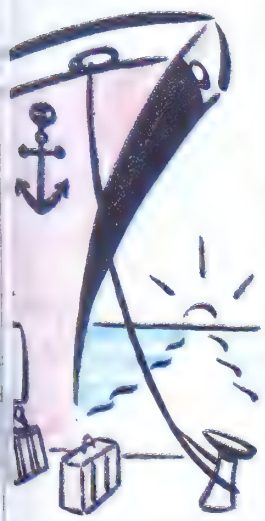
AR STRIKES OUT. In an era of layoffs, ar becomes a powerful motivator. But s not a particularly useful one. Fear ifles innovation and risk-taking while ompting inertia, caution, and buckssing. "People have to figure out creive ways to do their jobs differently d better" in tough economic times, ys John W. Himes, vice-president for man resources at Du Pont. "You real need them not to be sitting around rrying about losing their jobs."

The 1990s promise to be a time when nerican companies will place heavier mands than ever on their managers—d that means the problem of how to ep valuable talents motivated will pose one of the most important management challenges of the decade. It's one that's already preoccupying companies such as General Electric, PepsiCo, Merck, Hewlett-Packard, Hyatt, and Hughes Aircraft. Along with Du Pont, these companies are exploring a broad array of techniques to help managers adjust to life in the slow lane. In the face of defense cutbacks, Hughes, for example, has eliminated 14,000 jobs, or 17% of its total, and wiped out two middle-management layers since 1985. Now, it's encouraging managers it can no longer promote so quickly to consider lateral moves instead. An electrical engineer, for example, might switch to quality control.

And at Hyatt Corp., the sheer number of promising young managers means that each must wait longer before getting the chance to run a hotel. So the company is encouraging staffers to start new businesses (page 195). Other companies are offering transfers overseas to provide variety. Some allow staffers to shoulder more responsibility or grant them more autonomy. Some let managers go on sabbatical to study. And some are tinkering with pay scales, making

AT DU PONT, A NEW LADDER CEO Woolard (center) provides new incentives for promising managers such as Hatter and Stalnecker

ET MANAGERS JUST SAY 'NO' Don't penalize hose who turn down transfers or promotions, especially vith today's family-cherishing managers. They may feel hey're not ready or may want to learn all they can in a urrent post. Reverse the Peter Principle.



◀ OFFER OFFSHORE MOVES An overseas assignment gives managers a chance to try something new. And their experience will be a plus for increasingly global companies. At Du Pont, for example, where almost half of sales are foreign, a stint overseas is becoming essential for promotion to top management.

◀ PROVIDE MIDCAREER BREAKS Send promising executives to management development programs at business schools. They can help prepare someone with a specialized background—in science, for example—for general management responsibilities. People will feel rewarded, and the company will get back a more skilled employee.

GIVE MORE POWER Offer autonomy. Make managers feel like owners—and they'll perform better than if they feel like bureaucrats who have to ask permission at every step. Harness their entrepreneurial impulses before those impulses make them decide to try it on their own.

them less rigid and tying compensation to performance rather than title.

In their most successful forms, these efforts do more than keep up-and-comers temporarily content: They yield broader benefits for the corporation down the line. A transfer abroad, for example, can offer a young manager a change. But it also creates an executive with international experience that an employer is likely to find valuable in an increasingly global business world.

Similarly, the Slow Track eliminates some of the problems lurking behind the old fast-track system. The era of rapid promotions created a cadre of executives whose experience was often shallow. Their brief tenures in any one job gave them little knowledge of follow-through and helped foster a short-term focus. "You would put a lot of initiatives in place, but then you would be transferred before you saw the result," Woolard recalls. "You were robbed of the pleasure of the success—or of the learning experience if it didn't work out."

'RETROGRESSION.' Getting up-and-comers to accept the realities of diminished career expectations won't be easy, though. Donald C. Hambrick, a professor of management at Columbia University business school, notes that the thinning of middle management has spawned a serious morale problem among the survivors, who find that their jobs have broadened—downward. "The remaining middle manager is stuck not only with the work he was originally doing but the stuff his fired subordinates were doing," Hambrick says. "You've got career retrogression, where 45-year-olds find themselves doing things they did when they were in their 30s."

Even when jobs are broadened in the best sense to make up for the lack of traditional advancement, employers face stiff morale challenges. For starters, managers will have to be persuaded to ignore the time-honored cultural signposts they've used to gauge their standing in the career race. Their employers must make it clear that longer tenures and overseas moves aren't the kisses of death they once were.

MAKING TIME FOR R&D

Donald Rogers' electronics researchers at Du Pont now have more autonomy—and they're more productive

And ultimately, there's the risk that the very best and brightest simply won't accept the Slow Track, but will choose to look elsewhere for the rewards their present employers can't offer. The slower pace at Du Pont worries some managers, who say they'll look outside the company if they start to feel bogged down. "My loyalty to Du Pont is not what it was," says one 13-year veteran.

To make such defections a little less likely, Du Pont is trying to reward managers with more autonomy. Five years ago, Kurt M. Landgraf found the hassles of starting new projects daunting: Proposals had to survive four levels of review. As a result, he says, Du Pont lost out on the opportunity to license some promising drugs in Europe.

Now, the 44-year-old division director feels free to take some chances. Two years ago, his request for $5 million to start a new generic-drug venture needed approval from only one manager above him. Just named executive vice-president of the newly formed Du Pont Merc Pharmaceutical Co. joint venture, h happily intends to stay in his post lon enough to see the venture fly or fail.

The longer leashes are good for th company, too. Productivity among re searchers has risen dramatically in Du Pont's $1.7 billion electronics busines which makes materials used in electron gear, says Donald B. Rogers, a vic president in charge of the R&D un Back when the unit had as many as research managers, experimenters ha to devote much time to bureaucrat busywork, such as filing weekly repor on projects. Rogers now has only tw research managers in his group.

MORE WORK. Now that researchers a freed of such time-wasters, more wo gets done—and some of it is more ve turesome, too. Earlier this year, for e ample, Du Pont introduced its Rist coated film, which is used in printed c cuit boards, less than six weeks aft customers asked for it. A few years ag it would have spent six months in e haustive internal testing and review. It

EXPERIMENTS IN MOTIVATION

GE

Cut the number of pay grades and broadened them dramatically to allow more latitude in raises. Also trimmed management layers from 10 to 4

HEWLETT-PACKARD

Set up a technical track to let scientists advance without taking on management tasks. Now, technicians don't have to manage people to move up

MERCK

Offers variety in career development. For example, scientists can attend law school and become patent attorneys. Encourages movement abroad

PEPSICO

Encourages lateral movement across divisions. Also broadening jobs, so a Taco Bell benefits-plan manager, for instance, can take on recruiting and planning, too

TRW

Offers 'technical fellowships' to engineers, who get generous research budgets and broad latitude to work on projects. Spurs teamwork by sharing Pentagon bonuses

INTEL

Experimenting wit job-sharing, puttin as many as three managers on team so fewer people c do more work. Eve the chief executiv and chairman sho jobs

FEELING STUCK AT HYATT? CREATE A NEW BUSINESS

John Allegretti remembers the day last year when he decided to quit. After two years as a switchboard perator and an assistant housekeep-ng manager at the Hyatt Regency hicago, Allegretti was chafing at the ng grind required to become a hotel anager. "I hated the repetition of my ay," he recalls, "and realized that the otel business just wasn't for me." In-tead, the 23-year-old yearned for a ore challenging job that also would elp the environment. So after months f resumé-writing and interviewing at aste-recycling companies, Allegretti nally landed the job of his reams—right back at Hyatt.

Anxious to retain Allegretti, ice-President Don DePorter sked him to head a project to educe waste at his 2,000-room otel. Allegretti did so well at Hyatt let him develop and n a new waste-consulting mpany called International eCycleCo Inc. Besides several rge Hyatts, ReCycleCo now as 24 clients in 8 states. "I've en John working at 10 a.m. id later that same night at 2 m. because he's hyped about " says DePorter.

NG HITCH. Figuring out ways keep employees hyped has come a way of life at Chica-based Hyatt Hotels Corp., e flagship of the Pritzker mily empire. Motivation was ss of a problem in the 1960s, hen it took as little as three ars to become a hotel manag-at the fast-growing compa-. Now, aspiring hoteliers ust wait eight years or long-to run even a small hotel.

To keep staffers energized d ideas flowing, the $2.2 bil-n lodging giant uses every-ing from monthly worker rap ssions at its hotels to anony-ous employee critiques of bosses. As esult, Hyatt is bombarded with staff ggestions to improve hotel service. id a full 60% of its 5,000 managers ve been with Hyatt since starting as inees. That's no mean feat in the madic hotel business.

Now, Hyatt is taking its motivation forts one step further: It's helping ployees with novel ideas outside the mpany's core business to set up free-nding companies. In the past three ars, employee suggestions have mpted Hyatt to spin off a half-doz-en ventures in such things as party catering, retirement apartment complexes, and sporting-equipment rental shops. And, like Allegretti, the people who help develop the ideas are usually allowed to run the new ventures. They receive startup capital—but they don't get an equity stake. Hyatt sets up the ventures as separate companies largely to let its lean corporate staff concentrate on hotels.

The startups allow Hyatt and its managers to build on some expertise or insight they've acquired in the course of running the hotel business. James E. Jones was director of sales development for Hyatt Hotels when he noticed that professional party planners were getting hefty fees for some of the same services Hyatt could provide, such as catering and entertainment. And thanks to his work at the hotels, Jones had wide contacts in professional sports, a big source of business for event planners. "I was ready to go out on my own with the idea if it wasn't accepted, because I knew it would work," he recalls.

After ordering up a business plan and holding a quick consultation with the Pritzkers, Hyatt Hotels Corp. President Darryl Hartley-Leonard last spring gave Jones $780,000 to see if his dream could be turned into a real business. Eight months later, Jones runs events planner Regency Productions by Hyatt. Regency has already won a contract from the National Football League to manage the corporate hospitality tents at next month's Super Bowl, as well as a contract to handle catering for the 1991 U. S. Open golf tournament. "It's the most challenging time of my life," says Jones, "but it's also the most rewarding, exciting, and phenomenal growth period of my life."

DePORTER, ALLEGRETTI, AND PRITZKER: ALLEGRETTI LAUNCHED A RECYCLING SPIN-OFF WITH THEIR SUPPORT

Still, the process can be difficult to manage—particularly for Hyatt's senior executives, who are frequently bombarded with ideas from employees who lack financial or technical skills. Jones, for example, had never drawn up a business plan. Hartley-Leonard found his proposal particularly thin on contingency planning if the venture didn't meet its initial revenue projections. "But you could see his thinker was thinking," the Hyatt president recalls. So rather than pan the idea as naive, he simply sent an excited Jones back to the drawing board to prepare some operating alternatives.

REINED IN. Giving managers plenty of freedom to try out their own ideas can sometimes backfire. Take the general manager of one suburban Chicago Hyatt several years ago who added a club and disco—and named it after himself. Unfortunately, the manager never mentioned his plan to headquarters, which was embarrassed to learn months later about a new disco in its own backyard. Hyatt left the disco and manager in place, though. "If you fire somebody who does that, then nobody else would ever try anything they believed in again," says Hartley-Leonard.

Thomas J. Pritzker agrees. Says the 40-year-old scion who serves as president of Hyatt Corp.: "It's always better to have a racehorse you have to rein in than a donkey that you have to whip." As any good jockey knows, the best horses set their own pace.

By James E. Ellis in Chicago

a smash product, too. "We broke a lot of historic protocols," Rogers says.

Du Pont and other companies are also hoping to use lateral moves as a motivating technique. Pay and title may stay the same, but a new challenge gets managerial juices flowing. At PepsiCo Inc., a lateral move used to be the equivalent of a death warrant. Now, it's standard for 6 of every 10 management-track staffers. For example, prized executives often bounce from the Kentucky Fried Chicken unit to Frito-Lay and overseas. The symbolism of such moves has changed, says Andrew S. Grove, chief executive of Intel Corp.: "The world accepts more career diversity than it used to. You can zigzag your way up and down and still hold up your head at the neighborhood store."

TIME OUT FOR MIDCAREER TRAINING

Du Pont sent Phyllis Allen to MIT for three months—and won her renewed loyalty

BIGGER PICTURES. Such zigzagging should help broaden U.S. managers, who have too often risen along narrow paths—advancing, say, up the marketing ranks—before getting more general management experience. "They then have a limited understanding of the business, because they've spent their entire careers in one function," says Edward E. Lawler, professor of management at the University of Southern California.

By contrast, Lawler says, the Japanese typically give their younger managers broad experience first and wind up with senior managers who know their businesses and companies far better. So at Du Pont, promising engineers who join the company now commonly go through a six-year initiation period, working in three different areas before settling in one department.

Academics are encouraged by another tool: the offshore move. Merck & Co., for instance, shipped a personnel director from the U.S. to Norway to give him breadth of experience. He got no new title and not much more money, but some worthwhile diversity on his resumé. "He did it for the experience," says Steven M. Darien, vice-president for human resources at Merck. Adventure isn't the only selling point: At Du Pont, where nearly half the sales are foreign, overseas tours are becoming *de rigueur* for eventual moves up.

NEW BALANCE. Du Pont is also sending some promising executives on academic sabbatical. Phyllis K. Allen, a 41-year-old molecular biologist who came to Du Pont when it acquired her nuclear-medicine company, took a three-month executive-development program at Massachusetts Institute of Technology's Sloan School of Management. The program gave Allen, a scientist who is destined for broad management responsibilities, her first formal education in such general management skills as financial planning. And for its $30,000 investment, Du Pont has won her renewed loyalty. "It was a tremendous commitment to me as an individual," she says.

For all the worry, there are plenty of managers who aren't alarmed by the Slow Track. Those who get their job satisfaction more out of what they do than what they're called aren't complaining. "I'm looking for the experience. I don't get a lot of ego gratification out of title," says Susan M. Stalnecker, comptroller of Du Pont's $1.8 billion agricultural-products unit. "Some of my whi male counterparts really are a lot mo hung up on advancing than I am." A as a mother of 6-year-old twins, the year-old says that a more sensible pa sounds good: "I'm a wife and moth and my job comes third."

Such priorities don't seem to ha hurt her. Over the past 14 years, St necker rose from a modest corpora

NO BOSSES. AND EVEN 'LEADERS CAN'T GIVE ORDERS

When Ara E. Atkinson joine Gore & Associates Inc. years ago, she was a sin ent with a high-school-equivalency and a bit of community college. Gor Atkinson, who had been a hairdres six years, as a production-line wor dering electronic parts at $4.50 an h

Atkinson, 30, is now Gore's artist er. Early on, a co-worker noticed he for drawing and knew salespeop needed artwork for presentations. kinson was a production worker, an was no artist's job she could appl obstacles that would have kept her line at most companies. Instead helped her create the job of illus sales materials and brochures. The ny even paid for her commercial ar ing in night school at the Univer Delaware. Atkinson has more than her starting income.

Such stories abound at the Newar company. The rest of Corporate An only beginning to think about how vate employees now that there's a ing hierarchy to slot people into. B a quirky, family-held plastics compa never had much of one: It has been menting with an almost free-form ment structure for 32 years. As oth panies look for ways to slash bure "we can learn a great deal from co like Gore," says Edgar S. Woolard J executive of Du Pont Co., a major c and supplier.

For starters, Gore isn't big on t tles. Each of its 5,300 employees is sociate." Even Robert W. Gore mother, Genevieve, and late father, founded Gore—tolerates the presid tle only for legal reasons. And per as executive parking spots and big are taboo. A personnel administra needs space for staff meetings ha fice larger than Gore's. Instead of "leaders" head teams in plants departments.

It's more than just a semantic dis

ance staff slot through several management posts. She went part-time for ree years to tend to her family before ading off to London in 1987. There, e soon rose to become treasurer and a ector of a unit of Conoco, Du Pont's and-gas arm. Now back in the compa-'s hometown of Wilmington, Del., she uld gladly stay in her ag-products st for years. "The notion of being red? I can't even relate to that," she rs. "On balance, people are happier

s must share the power to hire, ıe, or fire associates with peer tees, personnel staffers, and ırs." Every employee has a spon-ıentor who functions as counselor ocate. Leaders are only one part 's pay-setting process, in which of associates meet every six to rank peers by subjective as-ıt of their contributions. Commit-erge the lists and set raises, pay from the highest contributor ı.

ers also can't give orders. They y seek commitments from asso-Take the experience of Daniel D. : Six years ago, Johnson left Du ter 15 years as a successful prod-eloper to try his hand at Gore. A , he experimented with using a f Gore-Tex in printed-circuit for high-speed computers. Gore elaborate commercialization unit —or hinder—him. And Johnson order anyone to work on his

he persuaded a few associates to t. Intrigued, others joined, and e project team topped a dozen. hnson: "It was like an amoeba hape." The new laminate, which ıit the market next year, helped hnson the leadership of Gore's ics division. "You evolve into ip [at Gore]," he says. "You look ou, and you've got people follow-"

' SYSTEM. Gore isn't some little cultural outfit, mind you. By a flexible form of Du Pont's Tef-Gore-Tex, used in fabrics and medical, electronic, and industri-cts, the company has grown into $700 million-a-year outfit, with s in six countries. Although loath profits, finance associate Shanti ays Gore ranks in the top 5% of mpanies in return on assets and ales have roughly tripled since d he expects they will top $1 ithin five years.

er Gore was a Du Pont chemist ldn't get his innovation—Teflon or electrical wires—marketed by ompany. When he left, he vowed stifling bureaucracies, so he with a system that develops them without the necessity of constantly moving up in order to be perceived as growing."

Academics and personnel managers argue that men and women alike want to strike a better balance among outside interests, family, and career. "With so many dual-career couples and so many mothers in the work force, there is just a practical need for additional flexibility," says Art F. Strohmer Jr., director for executive staffing and development at Merck. These days, business students aren't just willing to settle for a slower climb: Some demand it. Says University of Southern California business administration professor Warren Bennis: "There's a feeling among the younger people, even at the business school at USC, that work is overrated."

The Slow Track lets companies accommodate that feeling. Some veterans admit that they regret spending more time in the office than today's younger man-

GENEVIEVE GORE (CENTER), SON BOB (RIGHT) AND "ASSOCIATES": FREE-FORM MANAGEMENT

tossed out the traditional chain of command for a "lattice" system. In it, any staffer may take an idea or complaint to any other: A machine operator can talk directly with plant leaders. Atkinson, for example, phoned Sally Gore, Robert Gore's wife and leader of human resources, to ask for help in creating the job of corporate artist.

Growth has made the fight against bureaucracy constant. The company breaks plants apart when they grow to more than 200 staffers. A few years ago, Gore noticed that a select 200 associates were seen as most important by colleagues because they attended a particular company meeting. So he opened that meeting to a broader cross section of staffers. Associates are also polled anonymously to make sure plants live up to Gore ideals. If not, task forces make changes. Vows Robert Gore, 53: "I expect to maintain the culture."

Of course, Gore's unusual culture sometimes conflicts with the more rigid ways of the outside world. Take the matter of titles: When Mehta called Wall Street investment houses for help with an employee stock-option plan a few years ago, he found he needed a fancy title to be taken seriously. At Gore's suggestion, he called himself president—and that won him the appointments he needed. Another associate came up with an even loftier-sounding solution: She once styled herself "supreme commander" on a business card. You can't expect the outside world to adopt the Gore way of doing things overnight.

By Joseph Weber in Newark, Del.

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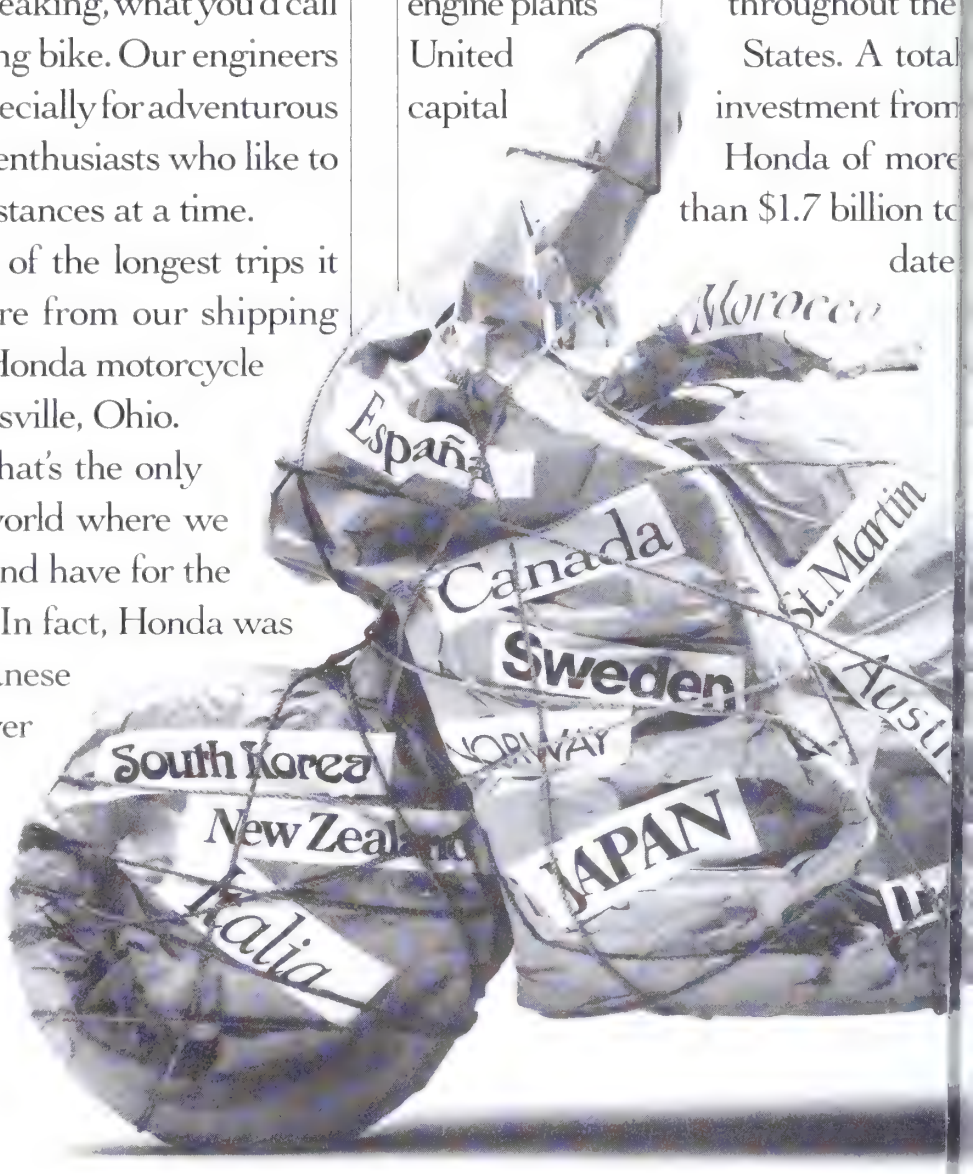

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HONDA

agers. And some now say they won't penalize someone who refuses a career move for domestic reasons. "When I started working, if you turned down a promotion, you could forget about your career," says Landgraf, the Du Pont pharmaceuticals executive. "Now, it's widely accepted that people can and do turn down promotions and relocations."

PERSONAL GROWTH. Still, work is inescapably the first priority for many. To help its managers thread their way through the new career maze, Du Pont offers more than the standard annual performance evaluations. Executives in Stalnecker's 120-person division have frequent informal talks with managers to set personal growth goals and chart out a path to reach them. "In the past, these were oriented to: 'What job am I getting next?' " says Stalnecker. "Now, it's more: 'How can I be developed as a person?' " Suggestions might include in-house management training or outside volunteer work with United Way. Managers also size up the development efforts that their supervisors are making for them.

As management ladders change, experimentation is continuing at many companies. At Intel, CEO Grove recently let a valued but tired 16-year veteran turn his job over to another manager, take a pay cut, and report to his successor. After a one-year break-in period, the veteran will switch to an even less demanding post. But the new job will be "something that will charge up his juices again," Grove says.

Grove also now has executives sharing jobs: He shares the president's role, dubbed the "Executive Office," with Chairman Gordon E. Moore and Executive Vice-President Craig R. Barrett, for instance. Grove focuses on management issues and product strategy, while Moore concentrates on financial matters and Barrett on operations. Such team approaches are needed, Grove says, because more work is being done nowadays by fewer people.

Science-driven companies are also exploring different ways to advance their people. Technical whizzes disinclined to management at some companies now have so-called science or technical ladders they can climb without taking on supervisory chores. Merck gives its top scientists free rein in research, so long as their work shows promise of a new drug. Hewlett-Packard Co. has just set up a technical track to pay R&D project managers based on the scope of their research work instead of management chores. And in October, TRW Inc.'s space and defense business named its first 19 "technical fellows," who will receive generous research budgets and broad latitude to pursue projects unfettered by frequent reviews or reports.

To adjust to the leaner styles, companies are also changing longtime pay practices. Since General Electric Chief Executive John F. Welch Jr. compressed 10 layers of management into 4, the company has replaced its long-standing 29-tier pay scale with a 5-level scheme. Pay grades 8 through 11, for example, have been compressed into a single ban ranging from $33,000 to $74,000. Th broader bands make lateral moveme easier. A finance manager at the ol level 9 who wanted to try marketin would have been stymied if the post h coveted was a level 8. With the wid bands, the manager can try a new are but avoid taking a step down.

Experimenting with wage scales ca be risky, though. Two years ago, D Pont's $6 billion-a-year fibers busine tied raises to the unit's profits. With th business now in a slump, manageme scrapped the program in October rath than risk the morale problems th might come if the division's staffers g lower raises than their counterpar elsewhere at Du Pont.

HARD FEELINGS. Still, tinkering with sal ries is easy compared with changin managers' attitudes. Those who defi themselves solely by the rungs they' climbed are bound to have problem says Michael J. Driver, a manageme organization professor at USC. Such li ear-minded folks, as Driver describ them, are tough to reeducate. "Th problem is going to create a lot of diss isfaction, frustration, and internal poli cal fighting," Driver says.

The medicine can go down especia hard for managers who rose at fier clips in their early days. Seventeen yea ago, Norman Hatter Jr. handed his bo a four-page list of the jobs he planned have as he rose at Du Pont. Ticking promotions every two years or so, t brash young engineer ultimately aim for a vice-presidency, a level only a ha dozen down from chairman at the tit stingy company. Since then, Hatter h moved through nine jobs, but the la three have kept him at the directo level, a step down from vice-preside At 48, Hatter still has time to make s goal, but he vows that his next mo will have to bring him closer to th brass ring. "It has to lead somewher he insists.

For now, though, the Slow Track becoming so commonplace that frusti ed managers may not have many tions: Job-hoppers are likely to find same slog at their new employe That's why Harvard business school p fessor Rosabeth Moss Kanter predict surge of entrepreneurialism as dissa fied managers strike out on their o But the majority will stay within corporate ranks. And their employ will have to find more ways to make pace tolerable for rising stars with l room to rise.

By Joseph Weber in Wilmington, D with Lisa Driscoll in New Haven, Rich Brandt in San Francisco, and bur reports

THE FREEDOM TO ACT

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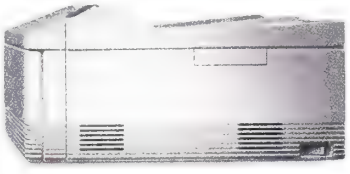

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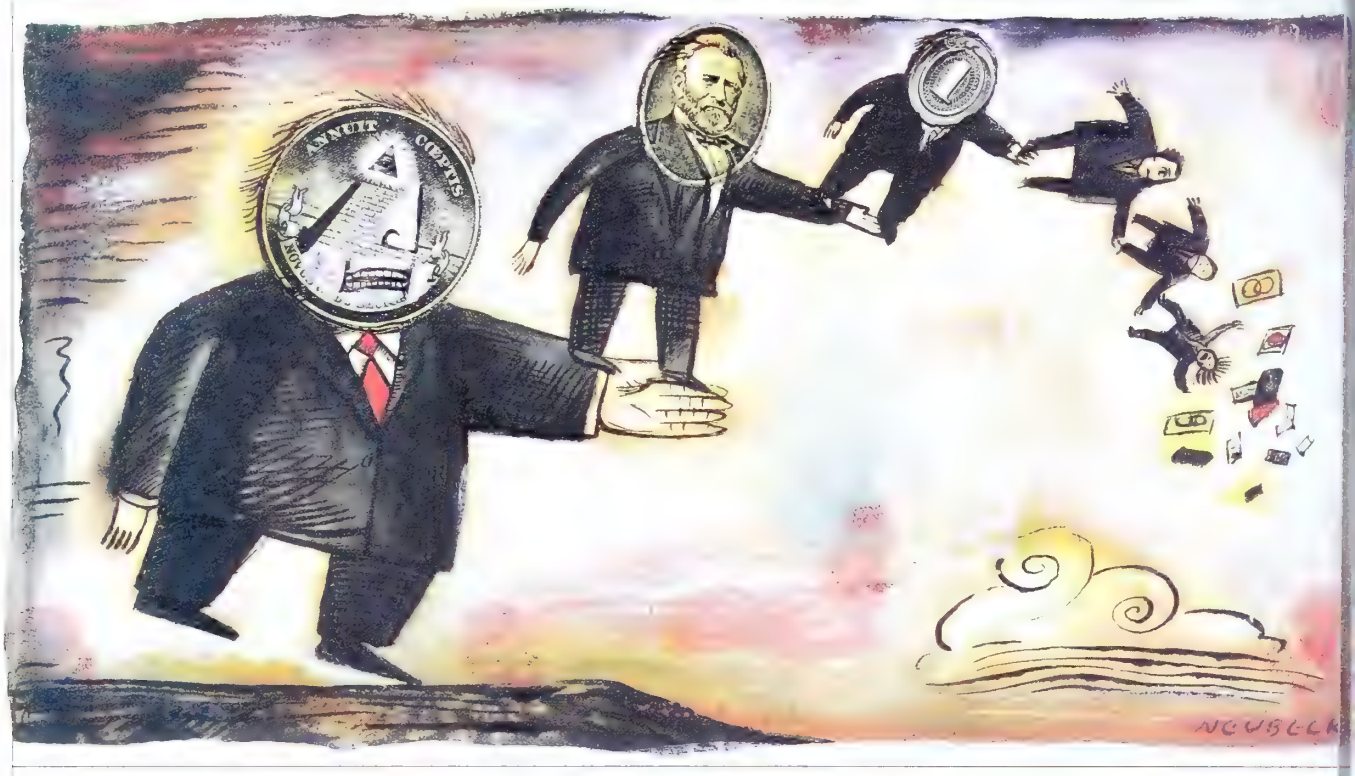


PAST DUE! THE BILL FOR CONSUMER DEBT ARRIVES

Delinquency rates are up for mortgages, credit-card debt, and loans—and that could hurt the bank

Charge it. That simple slogan was almost a battle cry for a generation that spent its way through most of the 1980s. From credit cards to home-equity loans to mortgages, legions of consumers extended their purchasing power by borrowing heavily to finance both necessities and luxuries. Indeed, consumer debt grew almost twice as fast as the gross national product. Individuals now owe more than $3 trillion, compared with $1.3 trillion in 1980.

Paying it back is another matter, however. The eight-year expansion is now at an end. Unemployment is up. Consumers are feeling strapped. Personal bankruptcies rose 15% this year. That comes on top of a 10% rise in 1989. What's more, consumer-loan delinquencies are creeping up at a time when the economy is just heading into a recession. Concludes economist Allen Sinai of the Boston Co.: "It's going to get worse. The financial position of households will deteriorate over the next three to four quarters."

That could spell even more trouble for banks and thrifts. Already saddled with bad commercial real estate loans, lenders are in no shape for another round of credit jitters. For example, Citicorp, the nation's largest consumer lender, recently disclosed that residential mortgages that are 90 days or more past due rose to 3.6% of its portfolio in the third quarter, from 3% the previous quarter, adding $100 million to its bad-debt load.

LOST LUSTER. And Citi isn't the only bank that's exposed. Money-center giants such as Chase Manhattan Corp. and Chemical Bank. have built huge retail operations. Superregional powerhouses, such as NCNB Corp. of Charlotte (N.C.), also have big consumer businesses. "There's no question that the consumer sector will be a growing problem for banks in 1991," says James J. McDermott Jr., director of research at Keefe, Bruyette & Woods Inc.

Just as devastating to bankers is the prospect that their profitable retail operations could lose their luster. Because consumer loans are small and spread widely over the population, consumers are typically better credit risks than companies. Profit margins are much better there, too. Big banks charge a low 19.8% on credit-card loans, while the prime lending rate stands at 10%.

It's no wonder banks got hooked on the consumer. No other decade has witnessed such demand for consumer credit, as baby boomers entered the ranks of the buying public. Prolonged prosperity fed the appetite for big-ticket purchases. Rising home prices meant bigger mortgages. And up until the Tax Reform Act of 1986, interest on consumer loans was fully deductible. "In a sense, there was government subsidy for borrowers," says economist Robert H. Dugger of the American Bankers Assn.

Lenders were quick to accommodate

hanks to advances in technology, banks uld scrutinize massive amounts of edit data on individual consumers. And an standards were gradually loosened. hen it came to home mortgages, for ample, many bankers and thrifts were illing to accept far less than the tradi- nal 25% downpayment. New credit in- ruments also flooded the market. A g hit: home-equity lines of credit that lowed homeowners to borrow against e rising value of their houses.

NGE BUSTERS. Then there are credit rds. Once an emblem of wealth, banks gan marketing plastic to a mass audi- ce. Just last year, American Telephone Telegraph Co. raised the ante for big rd issuers by hawking its own, no-fee rsion of Visa and MasterCard, known the Universal Card. Today, there are 7 million bank cards in circulation, mpared with 120 million back in 1980. ie average balance today is ,300, vs. $510 in 1980.

The big consumer-credit binge is owing, however. The pace of usehold spending is easing. And e demand for credit slackened amatically as consumer confi- nce plummeted after the Kuwait asion. As the warnings of a re- ssion multiplied and gasoline ces soared, consumers put off rchases.

Higher unemployment has also rt. The job loss is most notable ong white-collar workers, who ount for a big share of consum- debt. "We're seeing more of the porate-executive types that ught they were irreplacable," s Luther R. Gatling, president Budget & Credit Counseling Ser- es Inc. "They're out of work or ve] taken a lesser job, and they st deal with their indebtedness." tling's New York-based, non- fit agency had 11,000 clients t year. He expects to see some 00 this year.

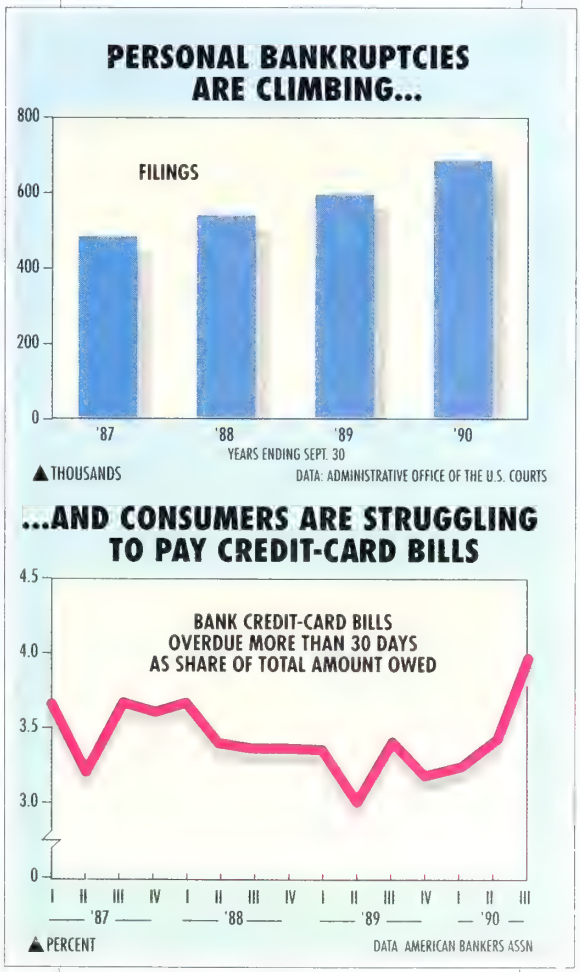
FEAR. Even American Express , which caters to an upscale au- nce, has turned cautious. Edwin perman, who heads AmEx's d business, says the company raised the standards it uses to een customers and has cut back mailing solicitations that offer approved cards. "We made it a more difficult to get a card," Cooper- n says. Still, the increase in personal kruptcies has led to a slight rise in rge-offs. He also says more people taking longer to pay.

AmEx isn't alone. Delinquency rates consumer installment loans issued by ks, which come to some $735 billion, edging higher. At the close of the d quarter, the ABA says 2.56% of h loans were 30 days or more over-

> As real estate prices fall, some homeowners may end up owing banks more than their homes are worth

due. That's up a fraction from 2.55% in the second quarter and down from 2.88% in 1989's third quarter. But many bankers and economists expect delinquencies to worsen as the economy stumbles.

There's already cause for worry. Roughly 4% of credit-card receivables were past due in the third quarter. That's the highest delinquency rate in three years. And card losses will mount. Personal bankruptcies already account for half of credit-card loan write-offs, and filings are projected to rise by 7% next year and 10% in 1992, according to the Administrative Office of the U. S. Courts. Such losses could be especially damaging to banks because credit-card loans are unsecured.



Another big fear for bankers is that residential mortgages, once the safest of loans, could also suffer. After languishing at a 10-year low of 4.4% in the first half of the year, some bank economists say delinquencies—mortgages with payments more than 30 days overdue—will rise all through next year. Economist Paul Getman of Regional Financial Associates, a West Chester (Pa.) consulting firm, warns that delinquencies will depend a lot on real estate values. As prices fall, some homeowners may end up owing banks more money than their homes are worth. "You'll get people who can't pay and won't pay," Getman says. That happened at the height of the regional recession in the Southwest when delinquencies hit 6.1%.

Regulators are voicing concern. The Comptroller of the Currency is urging banks to track personal bankruptcies and late payments. And many bankers expect regulators will scrutinize consumer-loan portfolios next year. In response, banks are scrutinizing loan applications. Many are reducing the amount they lend for home-equity loans. "If economic conditions were to deteriorate, delinquencies could move up fairly smartly," says Ross Waldrop, a financial analyst with the Federal Deposit Insurance Corp.

DIVERSE BUNCH. Few analysts believe that consumer-debt woes will ever match the problems that banks have with corporate clients. For starters, consumers are a diverse bunch, and therefore they are traditionally better credit risks. And banks write off much of their consumer debt once it is 180 days overdue, so there is no buildup in nonperforming debt as there was with Third World loans and commercial real estate. Moreover, the biggest problems have been confined so far to the Northeast and Mid-Atlantic regions, where the economic downturn is severe. In New England, home-mortgage delinquencies have jumped 25% in the past year.

Still, as recession takes hold, problems will become apparent elsewhere. Even California banks could be in for a few surprises. "California is not going to be the land of milk and honey forever," concludes George M. Salem, an analyst at Prudential-Bache Securities Inc. Real estate values have already softened some. Salem estimates prices on existing homes are off 10% to 20% from mid-1989 peaks.

As overdue bills mount, consumers may have little choice but to tighten the hold on their wallets. And bankers won't be the only ones to suffer. What would have been a mild recession could end up a lot nastier.

By John Meehan, with Leah Nathans Spiro, in New York, Catherine Yang in Washington, Geoffrey Smith in Boston, and Joan O'C. Hamilton in San Francisco

▲ "Market observers understandably have the jitters"
RICHARD JENRETTE Equitable Life Assuran

◀ "The system needs help. Everyone knew that Mission was going under, but it took years to shut them down"
JACK BYRNE Fireman's Fund

WHY INSURERS AREN'T THE S&Ls OF THE 1990s

The industry is in trouble—but don't count on a thrift-style crisis

The next savings-and-loan fiasco? That's the scarifying talk about the insurance industry lately. Insurance companies, controlling $1.7 trillion in assets, are a dynamo for Corporate America, providing capital to the smallest startup and the mightiest conglomerate. Thrifts, the traditional home-mortgage providers with $1.2 trillion in assets, have shorted out, with a cost to taxpayers of up to $500 billion. If insurers break down too, the results for the U. S. economy could be catastrophic.

Inciting forecasts of calamities are some very real concerns: insurance carriers' big exposure to the slumping real estate market, sizable holdings in the devastated junk-bond arena, and a mounting level of insolvencies. Insurance, traditionally one of the nation's most invisible industries, is suddenly the center of hand-wringing congressional hearings. Newspaper op-ed pages print jeremiads about "disturbing parallels" with the S&Ls. And a recent study of the industry conducted by Ralph Nader's Public Citizen warned: "We cannot afford another savings-and-loan-type bailout."

Very true. The likelihood of an insurance apocalypse, however, is slim. Says Robert L. Posnack, head of insurance services at Ernst & Young accounting firm: "I hear the S&L comparison a lot, and it's way overdone." While loose talk of disaster has hurt the industry, it may spark long-delayed attempts to beef up weak state insurance regulations and to fix the problems the industry actually does face.

Insurance companies are in far better financial condition than most S&Ls (table). Insurance providers are sitting on a comfortable net worth—13% of assets—that is a cushion against unanticipated setbacks. Thrifts, by contrast, have a scant 4%. Many S&Ls, which have almost half their portfolios in real estate, hurt themselves through often spectacular misadventures, especially in the Southwest. Insurance companies have been much choosier in their real estate investments, with less risk in more geographically diverse holdings. And they own higher-grade junk. Says David P. Wells, a vice-president at Fitch Investors Service Inc.: "Thrifts had junk, insurers have junque."

WORST-CASE SCENARIO. While insurance insolvencies are rising, they are dwarfed by the S&L imbroglio. Insurance failures peaked at 44 last year, up from four in 1981, and 1990's level may be almost as high—33 have collapsed as of mid-November. But thrifts suffered eight times more failures in the past three years than insurers did. Most of the insurance insolvencies have been very small companies, typically with assets of less than $20 million. The assets of the average busted S&L are $358 million. Largely for this reason, the absolute worst-case scenario—as projected in a study by IDS Financial Services Inc.—places the insurance bailout tab at $11.5 billion. The thrift debacle, according to the U. S. General Accounting Office, could end up costing 40 times as much.

There's no denying that insurers are under financial pressure these days. The return on equity for both life and property-casualty companies is down by a third from the mid-1980s, to about 10%. Life insurers have suffered because

HOW INSURERS AND S&Ls COMPARE

	Insurance companies	Savings & loans
WORST-CASE RESCUE COST	$11.5 billion	$500 billion
NUMBER OF FAILURES SINCE 1988	107	829
NET WORTH TO ASSETS	13%	4%
JUNK BONDS Percent of assets	3.5%	2.5%
REAL ESTATE LOANS Percent of assets	18.2%	47%

DATA: IDS FINANCIAL SERVICES INC., U.S. GENERAL ACCOUNTING OFFICE, AMERICAN COUNCIL OF LIFE INSURANCE, INSURANCE INFORMATION INSTITUTE, U.S. RESOLUTION TRUST CORP., U.S. OFFICE OF THRIFT SUPERVISION

mpetition from other investment oducts forced them to pay richer poli holder dividends. Property-casualty rriers have been hurt by a severe te-cutting war. Meanwhile, fears out the recession are pounding insur ce stocks: In the past six months, ey have fallen 20%.

Several large companies have been especially hard. Take giant Travel s Corp., whose $47 billion investment rtfolio is bleeding from a heavy con ntration in real estate—34% is in rtgage loans. Travelers has a stag ring $3.4 billion in nonperforming rtgages, and analysts expect that to $4 billion by mid-1991. Will Travelers l and leave its legions of customers the lurch? Not likely. Premium in me and other investments are strong ough to offset these woes. At worst, arterly stock dividends, recently cut m 60¢ to 40¢, will be sliced again. ys Udayan Ghose, an analyst at earson Lehman Brothers Inc.: "It's a blem for shareholders, not claims lders."

Everyone's favorite high-profile ch has been Equitable Life Assur ce Society, the nation's third-largest urer. The company's 1989 earnings $125 million are half the 1986 show . But Equitable's problems have en blown out of proportion. Its main htmare is over: The $17 billion in aranteed investment contracts, which dged overly generous interest pay nts to investors and lost the compa $1.5 billion, are almost all expired. founded rumors that Equitable is ut to file for bankruptcy still occa nally sweep Wall Street. Says Chair n Richard H. Jenrette: "With the nomy moving into a recession, mar observers understandably have the ers."

KY BUSINESS. While most big insurers e the resources to survive a down n, there's a death watch on one: st Executive Corp., whose vast in tments in junk—68% of its portfo —have turned bad. Although the Los geles company insists it can raise ugh cash via asset sales to survive, spects look grim. Customers have ined the company by redeeming $3.1 ion in policies and annuities during 0's first nine months.

urid tales of big-name woes obscure industry's chief problem: small-fry panies with poor underwriting. Lit insurers often try to expand too ckly by allowing independent agents write new policies without supervi n. The result is tidy commissions for agents and risky business for the panies. That's a major reason that uston-based Great Southwest Life urance Co., which had $16.5 million ssets and $25 million in liabilities, went into receivership last March. According to the Texas Board of Insurance, huge claims on accident policies held by Great Southwest overwhelmed it. Company executives couldn't be reached for comment.

Small companies also have fallen into the trap of relying too heavily on reinsurance, an arrangement where carriers enlist other insurers to share the risks. This allows the companies to write more business. The setup works fine as long as the reinsurers are dependable. Mission Insurance Co., closed in 1987, demonstrates what happens when they aren't. The Los Angeles insurer had a scant $240 million net worth and $1.6 billion in claims. California regulators say that many of Mission's reinsurers stiffed the company

BUYING A LITTLE INSURANCE INSURANCE

For most of us, choosing an insurance policy is about as much fun as having our teeth cleaned. Too often, we make the decision on the basis of an agent's sales pitch. But with the balance sheets of many insurers becoming increasingly shaky, that could spell disaster.

Unlike savings-and-loan depositors, you can't count on Washington to bail you out should your insurance company fail. Policyholders must depend on state guaranty funds—pools underwritten by assessments on insurers—to pay claims. These funds typically reimburse up to $100,000. That's a comfortable three times more than the average death benefit, though it may not fully cover you. Even if it does, when an insurer collapses, the funds can take a year or two to pay out, usually in one lump sum. And while guaranty funds for property casualty insurance exist in all states and the District of Columbia, there are no guaranty funds for life and health policies in Colorado, Louisiana, New Jersey, or D. C. If you're caught without a guaranty fund, you'll be just another creditor in a liquidation proceeding—and you may wait many years.

To avoid such unpleasantries, do some sleuthing about a prospective insurer's financial stability before you take out a policy. First, see if the company is currently in trouble. Many state insurance departments answer questions from the public about the financial stability of carriers.

How do you spot an insurer who is not in trouble but may be eventually? "You can't rely on the regulators for that," says Joseph M. Belth, an Indiana University insurance professor. He recommends A. M. Best Co., an Oldwick (N. J.) firm that publishes detailed analyses of insurers' financial condition. *Best's Insurance Reports*, which most libraries carry, provides letter ratings, from A+ (superior) to C– (fair). Many insurers are too small or too shaky to be rated. Also, check to see whether an insurer is on Best's "watch list" of companies whose financial condition has recently deteriorated; their ratings may soon be downgraded (table). The watch list is published periodically in the monthly magazine *Best's Review*.

Professor Belth synthesizes data from numerous sources in his own newsletter every September. For a copy, send $10 to *Insurance Forum*, Box 245, Ellettsville, Ind. 47429.

Checking out your prospective insurer can itself be some of the best insurance you'll ever get.

By Larry Light in New York

INSURERS TO BE WARY OF?

Companies on A.M. Best's "watch list" rated B+ or below whose financial condition has worsened during 1990. Further deterioration could result in a ratings downgrade, although that has not happened yet

Company	Home state	Assets Millions
LIFE INSURANCE		
AMERICAN MERCHANTS	Minn.	$25.3
ATLANTIC & PACIFIC LIFE	Ga.	14.1
MOUNTAIN STATES LIFE	Colo.	13.5
PROPERTY-CASUALTY		
AMERICAN INDEMNITY	Tex.	$105.6
AMERICAN FIRE & INDEMNITY	Tex.	10.0
AMERICAN INDEMNITY LLOYDS	Tex.	0.5
ATLANTIC CASUALTY	N.C.	21.6
CORONET INSURANCE	Ill.	181.6
COTTON STATES MUTUAL	Ga.	112.0
FARMERS CASUALTY	Iowa	14.4
MERCHANTS & BUSINESSMENS	Pa.	21.6
MID-PLAINS INSURANCE	Iowa	3.4
TEXAS GENERAL INDEMNITY	Tex.	10.1
UNIVERSAL INSURANCE	N.C.	9.3

DATA: A.M. BEST CO.

when it came time to pay claims.

The way to hold down insurance insolvencies, many industry experts believe, is tighter state regulation. Too many watchdogs are pussycats. "The system needs help," says John J. Byrne, chairman of Fireman's Fund Corp., a large and healthy insurer. "Everyone knew that Mission was going under, but it took years to shut them down. Meanwhile, millions were lost." Only a handful of states require regulators to audit insurers as often as every three years. Crackdowns on excessively risky investments, clumsy underwriting, and flimsy reinsurance are rare.

One solution getting a lot of attention is national regulation of insurers, which would require a major overhaul of the 1945 law reserving insurance regulation to the states. The biggest argume against this: The feds were in charge S&L oversight, and look what happen Whoever is in charge, cleaning up t insurance industry at least won't nearly as daunting as the thrift mes

By Larry Light in New York, with L Driscoll in New Haven, Kathleen Ker in Los Angeles, and Ross Ramsey Austin, Tex.

COURTS

AS IF THE MARKET WEREN'T TROUBLE ENOUGH . . .

Now, courts are making it hard for shareholders to win grievances

It's no secret that the markets have bushwhacked investors. Less well known—but no less damaging in the long run—is the drubbing that shareholders have been taking in the courts. Even as judges throw the book at wayward financiers such as Michael R. Milken, the courts are making it tougher for shareholders to extract justice on their own.

A series of recent legal decisions sharply contrasts with five decades of rulings that took an expansive view of shareholder rights (table). And while the turnabout is welcomed by securities industry lawyers, attorneys who represent investors say the rulings are cutting into the traditional notion of the courts as a last resort for aggrieved shareholders. Says Michael H. Moirano, a partner in Chicago's Nisen & Elliott: "The courts are tying a noose around the necks of investors."

NO SYMPATHY. Why the about-face? To begin with, staggering criminal caseloads have pressured judges to turn a harsh eye on all civil matters, not just securities cases. Those pressures, combined with unsympathetic rulings by probusiness Reagan-era judges, have resulted in more suits being dismissed—and have increased the burdens on plaintiffs in cases that come to trial. Court rulings have made it more difficult to prove fraud and have cut back on discovery procedures that are often required to ferret out wrongdoing. In one typical ruling, a federal judge in New York ruled on Nov. 20 that an underwriter has no duty to make disclosures about a company after it has gone public.

The biggest setback for investors may have come on Nov. 8, when the influential federal appeals court in Manhattan became the second U. S. appellate panel this year to set strict deadlines for the filing of securities fraud suits. The court ruled that investors who claim fraud must bring suit within a year of discovering the misdeed—and no more than three years after they originally invested. In the past, courts applied state laws that often give investors more time—up to six years and sometimes more—to prepare their cases. The Supreme Court has agreed to resolve the conflict.

Some securities lawyers, backed by the Securities & Exchange Commission, believe that the three-year deadline is far too short and could let companies and promoters off the hook too easily. They say the ruling could prove devastating for investors in thrifts and priva partnerships, particularly in real est or oil-and-gas ventures that aren't pected to show profits before th years. "With one stroke of the pen, courts have wiped out thousands of frauded investors whose only hope w to sue," says San Diego attorney chael J. Aguirre, who represents ma private-partnership investors.

Other court rulings could make tougher for investors to prove that th have been victims of fraud. In ye past, if investors showed that a prom er withheld information that would h discouraged an investment, the promo could be liable for losses. But the U Court of Appeals in Chicago dismisse fraud suit against Petren Resour Corp., which investors claimed had fa to disclose lawsuits against the prom er. The court granted a motion fr Petren to dismiss the suit. The app ate court ruled that inv tors could not prove a rect connection betw the omission and th losses.

NEW LAWS? Recent co rulings are also makin harder to sue lawyers, countants, and investm bankers on allegations t they were privy to a fra ulent scheme but did n ing to stop it. "The cou seem prone to protec professionals," says Ch go attorney Arthur T. S man, who represented vestors in Contine Illinois Bank in an un cessful lawsuit aga Ernst & Young.

If the pendulum swi too far against invest Congress may step in. I resentative Edward J. Markey (D-Ma chairman of the House securities committee, is expected to push leg tion giving investors greater right securities-industry arbitration foru Lawmakers also may intervene if Supreme Court backs the three- deadline in shareholder fraud suits. with the legislative process all but p lyzed, aggrieved investors are likel find little comfort in the courts.

By Dean Foust in Washin

HOW COURTS ARE PARING INVESTOR RIGHTS

CERES PARTNERS VS. GEL ASSOCIATES

A U.S. appellate court judge ruled on Nov. 8 that civil suits must follow federal guidelines and be filed within a year after discovery of fraud, and no more than three years from date of original investment

DiLEO VS. ERNST & YOUNG

May limit the ability of investors to sue professionals for failing to detect or report fraud committed by publicly traded companies. A U.S. appellate court in May dismissed an investor's suit, after refusing to let investors see if there was any evidence in the accounting firm's files that it knew of problems at Continental Illinois but didn't disclose them

BASTIAN VS. PETREN RESOURCES

U.S. appellate court in Illinois tossed out an investor's suit against a promoter of an ill-fated investment, ruling that fraud was not proven. In the past, promoters have been held liable for losses when they had merely failed to disclose facts that would have discouraged investors—such as a poor track record

DATA: BW

Y GENE G. MARCIAL

F A SHOOTING WAR BREAKS OUT, FLUOR WILL WIN

One of the many stock casualties of the Kuwait invasion was Fluor, the world's largest international engineering and construction ompany. Its shares were battered om 45 in August to 29 in mid-Octoer. But they have snapped back since, 38, as some smart-money investors ave responded to what they believe e bargain prices.

These pros say the market has mped to the conclusion that Fluor's ojects in the Mideast—especially the g management contract it got in July om Aramco, Saudi Arabia's stateyned oil company—will bite the sand. ut if a shooting war breaks out, Fluor ill benefit. One New York money anager explains that while the finanal details of Fluor's contract with ramco haven't been divulged, it's a ve-to-nine-year deal that positions uor for major reconstruction work on ıy oil-field installations that may be maged or destroyed.

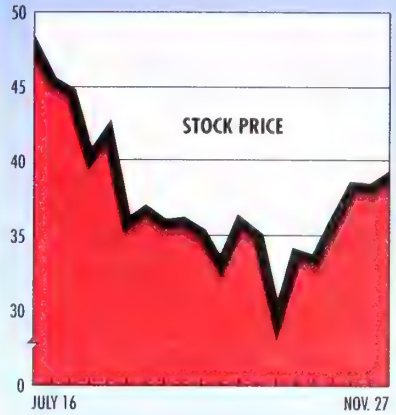
Art Micheletti, a strategist at investent manager Bailard, Biehl & Kaiser San Mateo, Calif., says the contract volves the replacement of old plants d installation of new ones. And if ere's a war, Fluor may also end up pairing damaged fields in Kuwait. icheletti believes that officials of the ıwaiti government-in-exile have alady talked to Fluor about the reilding they hope to do.

OKED UP. In any case, Fluor has a more going for it than that. The mpany, which derives 85% of revees and 57% of profits from engineerg and construction operations, has an ler backlog of $9.5 billion (excluding e Aramco agreement). Those orders e for work on oil refineries and emical plants in and outside the S., plus engineering work for U. S. lities that need help in complying th the newly passed Clear Air Act nendments of 1990.

Fluor is also bidding for major projs worth about $35 billion over the xt two to three years. Micheletti estites that the company will win conts worth at least $25 billion.

'If you have to own a stock in this certain market environment, Fluor is al," says Micheletti. It has a good rnings track record, little debt, and a healthy cash flow that Micheletti believes will be used to buy back shares. He thinks 1990 earnings will rise from last year's $1.35 a share to $1.75, with 1991 earnings hitting $2.40. In a year or so, says Micheletti, the stock could trade at 20 times that, or $48 a share.

FLUOR IS SNAPPING BACK



DATA: BRIDGE INFORMATION SYSTEMS INC.

THE CASE FOR SHORTING CHRYSLER

When the investment chief of a major Wall Street firm returned to New York from a business trip to Tokyo on Nov. 16, the first thing he did was short Chrysler, then trading close to 12.

Why? "I visited several plants and showrooms of major Japanese auto makers," he says, "and it left me depressed about American cars." Chief among his worries: U. S. carmakers will find it difficult to catch up since they're already in a long-term decline unrelated to global economic sluggishness. Chrysler, the weakest of Detroit's Big Three, is likely to post losses next year and maybe the year after, he figures. "I'm not suggesting that Chrysler will go belly up, but having lost earnings momentum, the dividend [$1.20 a share] is in jeopardy." He notes that Chrysler's share of the U. S. car-and-truck market has fallen from 13% to 11.8% this year.

The stock is already down 42% from its 52-week high of 20⅜, but this investment pro expects it to drop even lower, to around 7.

Veteran auto analyst Ron Glantz of Dean Witter Reynolds has changed his call on Chrysler from hold to sell. Glantz now believes that a Chrysler buyout or merger is unlikely. Talks between the company and Italy's Fiat Group that started more than a year ago could have produced specific joint projects or a Fiat takeover of Chrysler. But they ended on Nov. 2, and Glantz says it's difficult to see why another auto maker would be interested.

He notes that the shares are still selling at a premium to tangible assets, which Glantz puts at $10 a share as of Sept. 30, 1990. That excludes "billions of dollars in unfunded retiree health care benefits, Jeep CJ-5 rollover suits, and obligations to Renault," he adds. Chrysler's new labor contract makes the company even less attractive, he says, since it will raise the unfunded pension obligations by $1.5 billion, or $7 a share, by September, 1993. Indeed, Glantz says that in a strict sense, Chrysler has a negative book value.

CANDELA LASER MAY BE HEATING UP

Most investment managers who crunch numbers and track charts to divine the market's trends and spot its potential winners are bears. Not Rick Eakle. He rejects the argument that yields, price-earnings ratios, and price-to-book values have far to drop before the market hits bottom. Eakle thinks it already has.

The Dow Jones industrial average has been repeatedly successful in testing the 2400 level by bouncing back from it, says Eakle. "This presages the emergence of a distinctive bullish structural pattern." When this happens, the subsequent advances can be powerful, says Eakle, who left Morgan Stanley in 1988 as chief market strategist to form his own company. Since late September, selling pressure has declined in the market and fewer new lows have occurred on downside moves, he notes, adding that previous instances where that pattern was followed by dramatic upside moves occurred in 1942, 1962, 1966, and 1974.

Eakle's top stock pick: Candela Laser, a maker of laser systems for removing kidney stones and gallstones and for treating skin problems. Eakle says Candela's equipment makes surgery less painful and less costly. Because of the rising need for minimally invasive surgery, he says, demand for Candela's technology has grown fast.

The stock has held up well during the market's pullback. It's trading at 19, not far from its high of 21. Eakle thinks it will hit 36 in 12 to 14 months.

A BLIZZARD OF PINK SLIPS CHILLS ADLAND

As advertisers slash their budgets, agencies are feeling the biggest downturn since the early 1970s

The writers of ABC's hit TV series *thirtysomething* have added unemployment to their weekly catalog of yuppie angst. In a recent episode, the show's sympathetic protagonist, Michael Steadman, fires 10 employees from Drentell Ashley Arthur, the fictional ad agency where he is creative director.

Steadman's wrenching decision was only make-believe, of course. But on Madison Avenue, the drama has lately become all too real: Hundreds of agency staffers have been idled in recent weeks as the industry has slipped into its most serious recession since the early 1970s. And agency stocks have been pummeled in response to bad news from two once-invincible British marketing conglomerates, WPP Group PLC and Saatchi & Saatchi PLC (chart). "In 25 years, I've never seen anything like this," says Judy Wald, a leading headhunter for advertising agencies. "This isn't just a normal downturn."

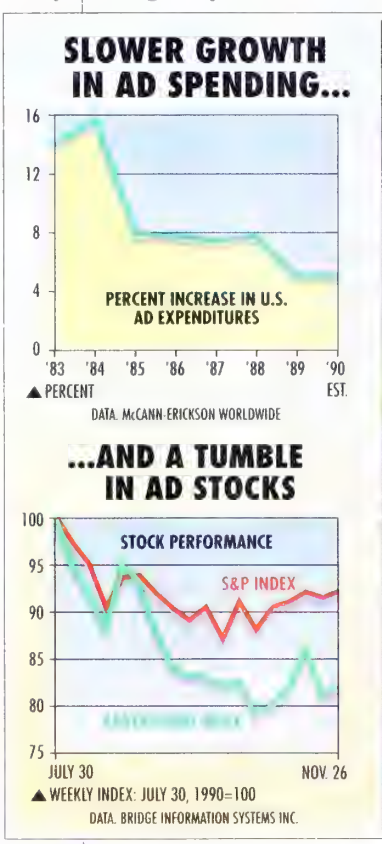
FEELING QUEASY. The pink slips have been flying in many of the industry's bastions. Young & Rubicam Inc. and Bozell each laid off 35 employees, largely in response to clients' tighter budgets. D'Arcy Masius Benton & Bowles Inc. let almost 70 staffers go after Kraft General Foods Group moved its $80 million Maxwell House coffee account to Ogilvy & Mather Worldwide. And J. Walter Thompson Co. fired 40 employees in its London office after losing the $51 million account of National Westminster Bank PLC. The layoffs are claiming both rookies and seasoned veterans. Geraldine Newman recently lost her job as an associate creative director at Backer Spielvogel Bates Worldwide Inc. after six years there and 15 in the business. Says Newman: "There's a lot of fear at all levels."

What makes agency executives queasy is the feeling that the worst is yet to come. "There's a concern about the unknown, moving into 1991," says Roy J. Bostock, chairman of DMB&B. Advertising agencies traditionally feel the pinch of hard times earlier than other industries, as jittery clients prune marketing budgets first in anticipation of a recession. This downturn is no exception: Big advertisers such as General Motors Corp. and Citibank have cut ad expenditures in response to weak consumer spending. Overall U. S. ad expenditures will grow just 5% in 1990, according to forecaster Robert J. Coen of McCann-Erickson Worldwide (chart). Coen has already downgraded that bellwether projection twice, from 5.3% in June and 6.2% last December.

If this downturn packs a bigger wallop than the recessions of the '70s and '80s, that's because so many shops labor under new constraints. Starting two years ago, big clients have been steadily abandoning the traditional practice of paying agencies a 15% commission on media billings. Some are negotiating deals that offer less than 15%. And packaged-goods giants such as Kraft, Campbell Soup, and Carnation are tying compensation to sales volume. If a product exceeds sales goals, an agency can make more than 15%. But if it fails to meet the goal, the agency can earn substantially less. That fear of a possible loss is a strong incentive for an agency to scrutinize costs. "This is a dangerous new wrinkle for the agencies," says John O'Toole, president of the American Association of Advertising Agencies.

The takeover excesses of the Eighties are also having a baleful effect. In previous downturns, agencies usually didn't have to worry about onerous debt or querulous shareholders. But now, many of the grandest names in adland are units of shaky conglomerates.

Take Ogilvy & Mather. By winning the Maxwell House account, the ag



In the wrong hands, it's just a stick.

No one ever got meaningful results by just pointing and waving. This is especially true in the area of workers' compensation, where costs continue to spiral out of control.

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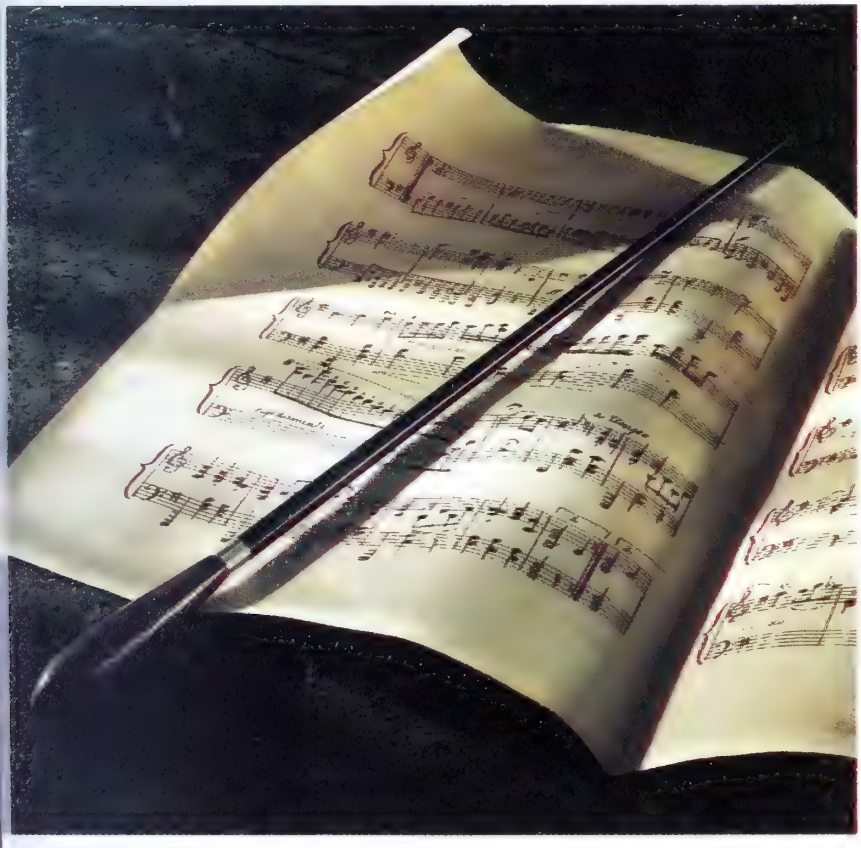

Rx Comp totally integrates the substantial benefits of our claims management programs with our dedicated provider network and proven medical cost containment techniques.

What's more, we're the only company that can provide all this with existing resources.

The result–better cost control and quality care. Plus the added advantages of faster claims processing and better management of all components in the program. Early results using this new approach indicate savings in excess of 20%.

Write Jack Morrison, CIGNA Property and Casualty companies, Phila., PA 19192. After all, plenty of companies have a few of the pieces, but only one has the vision to orchestrate all of them.

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achieved the rare feat of regaining a client it had lost a year earlier. But Ogilvy staffers say the celebratory champagne bottles were quickly recorked. Ogilvy, like J. Walter Thompson, is still shouldering the burden of its debt-ridden British parent, WPP. This burden grew heavier on Nov. 19, when WPP announced that pretax profits for 1990 will be "somewhat lower" than analysts' estimates.

That news was enough to drive WPP's New York-traded stock down 57% in one day: Its shares plunged from 13 on Nov. 19 to 5½ on Nov. 20. The stock closed at 5 on Nov. 28. Investors are more and more nervous that WPP, the world's largest marketing conglomerate, won't be able to meet its debt obligations as the ad climate worsens. Investors have been chary of ad agency stocks ever since Saatchi & Saatchi took its widely publicized tumble earlier this year. Says Alan J. Gottesman, an analyst at PaineWebber Inc., who discounts these fears: "At the first sign of anything, investors cut and run."

CUTTING COSTS. Until now, though, WPP and Chief Executive Martin Sorrell had been the great exceptions. Wall Street and the City of London marveled as Sorrell, the architect of Saatchi's growth, used his own company to gobble up two huge U. S. agencies and overtake his former employer. But now, WPP is saddled with problems uncannily similar to Saatchi's: $615 million in debt and slowing earnings at its ad agencies. Sorrell won't say whether WPP will sell any of its assets to pay down its debt. For now, say executives close to the company, Sorrell is simply hacking away at costs. That could mean another round of pink slips at Ogilvy and Thompson, though executives at both agencies deny it.

Despite the widespread firings, the pain of lower ad spending hasn't been shared equally. Agencies such as Bozell, which handle big automotive and financial-services clients, have taken a bigger hit than shops that handle more recession-resistant packaged-goods clients.

Still, even when the cycle turns, some ad executives fear that the industry may not bounce back as vigorously as it has in the past. For one thing, there's the steady shift in marketing dollars from splashy media advertising to the more mundane techniques of direct marketing and sales promotion—methods that generate less revenue for agencies.

Susan Friedman, a headhunter, says many unemployed ad people are so frustrated in their job search that they are weighing whether to move into direct marketing or sales promotion. That's a sobering comedown for executives who pride themselves on making poetry out of the business of peddling detergent.

By Mark Landler in New York

Information Processing

COMPUTERS

NORTON WITH THE NEC SX-2: IF THE SX-3 WORKS AS PROMISED, HE'LL "BE IN HEAVEN"

SUPERCOMPUTERS: GUESS WHO'S STREAKING PAST CRAY?

Japan's machines now lead when it comes to raw speed

In 1987, Massachusetts Institute of Technology was all set to lease an NEC supercomputer at an attractive price. Then Washington stepped in. Fed up with sluggish sales of U. S. supercomputers in Japan and worried about Japanese lowball pricing, the Commerce Dept. pressured MIT to nix the deal. In 1987, that was no problem: MIT turned to industry leader Cray Research Inc. and leased an even faster machine.

Today, things might not be so simple. Aided by strong advances in microchips, NEC, Fujitsu, and Hitachi have streaked past Cray in terms of packing sheer number-crunching velocity into a single processor. And that's grabbing the interest of many American scientists who need the fastest possible computers to design weapons or interpret weather patterns. Unless U. S. supercomputer makers leapfrog the latest Japanese models, America's cutting-edge researchers may face a tough choice: log on to a Japanese machine, or risk losing leadership in their fields of research.

A narrowing of the U. S. lead in supercomputers could radiate far beyond academia. Supercomputers are now used in industries ranging from steel to mi[cro]chips to pharmaceuticals and even ba[n]ing. In a few weeks, Congress will receive a major report on the superco[m]puter business, written by market [re]searcher Gartner Group for the Ener[gy] Dept. It concludes that a governm[ent] investment of just $1.9 billion in sup[er]computers for research from 1992 to 1996 would add as much as $500 bill[ion] to the gross national product by mak[ing] U. S. businesses more competitive.

NO MATCH. Claims that the Japan[ese] have outrun Cray are hardly new. [For] some time, Japanese supercomput[ers] have scored well in test programs ca[lled] benchmarks, which help compare c[om]puters. But supers can be tuned to ex[cel] in those tests, and, American exp[erts] stress, benchmarks don't really sh[ow] how a machine will work in the [real] world. Moreover, they point out, Cr[ay] run a wealth of proven software [not] available on Japanese gear.

Even so, keepers of the most closely watched benchmarks say that Japan[ese] machines are getting to be too fast to[o]

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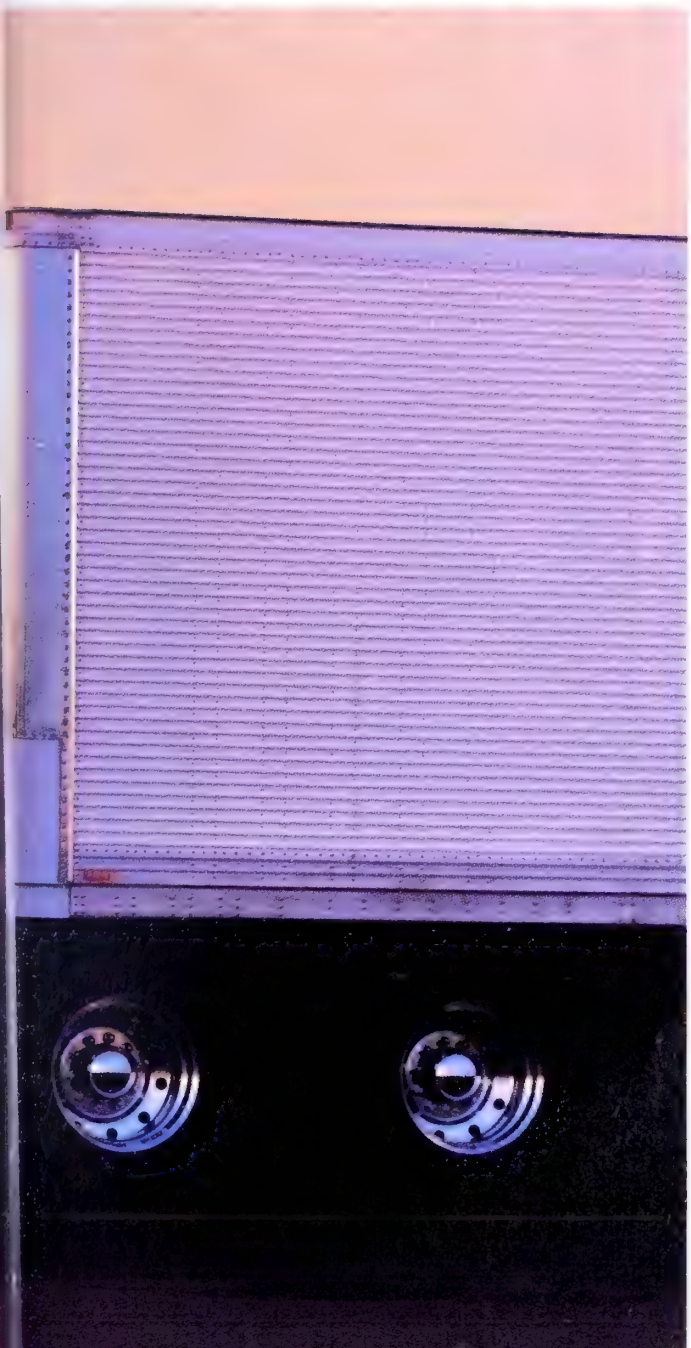

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Ford TRUCKS

Not just a new Ford... a new Ford attitude.

ignored. The strongest testimonial comes from Jack J. Dongarra, a supercomputer researcher at the University of Tennessee and Oak Ridge National Laboratory. He says a single NEC SX-3 processor tore through his Lapack benchmark at a heart-stopping 3.9 gigaflops, or 3.9 billion floating-point operations per second—10 times faster than a single-processor Cray. And even Cray's best, a Y-MP/8 with eight processors, peaked at 2.1 gigaflops. Says Dongarra: "The SX-3, by all indications, will be the fastest processor. There's no competition for this class of machine."

Not so, says Vito Bongiorno, Cray's manager of benchmarking: "Lapack is just one data point and must be taken in context. On real, slice-of-life programs, our . . . [design] excels and will continue to." Indeed, in Dongarra's lab the Cray machine outscored the NEC on another benchmark, the Linpack test. And experts agree that Cray is far ahead of the Japanese when it comes to building multiprocessor machines. Its Y-MP/16, due in 1992, will have 16 processors and a projected top speed of 16 gigaflops. NEC's biggest SX-3 has four processors, which the company claims can achieve speeds up to 22 gigaflops—but even Japanese experts are dubious.

In computational fluid dynamics—simulating complex phenomena such as air flowing by an airplane wing—the new Japanese supers rate high marks. Kozo Fujii, an associate professor at Japan's Institute of Space & Astronautical Science, figures Fujitsu's VP2600 series is 50% faster than Cray's Y-MP when running a benchmark he developed. NEC's SX-3, he reckons, is twice as fast as the Y-MP.

NEAR-OBSESSION. All this has caused American scientists to take a harder look. Some are urging the U. S. government to install a few Japanese supers in national labs for test-driving. Others have flocked to the Institute for Supercomputing Research, Recruit Co.'s research facility in Japan, which runs two NEC supers. Pilgrims have included MIT Professor Gerald J. Sussman and Piet Hut of the Institute of Advanced Study in Princeton, N. J.

In the past few years, thanks in part to a push by the Ministry of International Trade & Industry, Japan has developed a near-obsession with supercomputing. A big advantage: Japanese suppliers make their own microchips, which are generally faster than those Cray uses. Japan also has what may be the only private supercomputing research center in the world, the Tokyo-based Institute for Computational Fluid Dynamics. Founder Kunio Kuwahara has gathered four huge systems under one roof—an NEC, a Hitachi, and two Fujitsus, together worth more than $100 million. Linking them to high-definition TV equipment, he can create startling displays—of air mixing with fuel in a car engine, for instance. "It's a unique blend of Japanese HDTV and supercomputing expertise," says Laurin Herr, a New York-based computer graphics consultant.

Both Kuwahara and Fujii learned supercomputing at NASA's Ames Research lab. Now, they claim, the students have caught up with the teacher. "In some concepts, Japan is ahead," says Fujii. An example: software that enables a scientist to watch an animated rendering of a propeller in water, say, and easily alter the underlying calculations to view it from a different angle.

A flood of Japanese supers into the U. S. remains unlikely. Few U. S. scientists have actually kicked the tires on a Japanese super. There are at most four such machines in the U. S., and only one has been directly accessible. The Houston Advanced Research Center (HARC), a consortium of area universities, has used an NEC SX-2 since 1986 for high-energy physics, laser, and aerospace applications. Next February, it will trade up to the SX-3. If it delivers the threefold speed improvement NEC claims, "we'll really be in heaven," says David J. Norton, HARC vice-president for research.

An even bigger coup for NEC would be an order from Uncle Sam. Despite Commerce's continuing suspicion that the Japanese will try to buy the U. S. market by, in effect, dumping, a federal purchase may not be so far off. The National Security Agency wants some Japanese machines for its stable of 40-plus supers to test their code-breaking abilities, says a well-placed Washingt scientist. And Lawrence-Livermore N tional Laboratory, which designs nucle weapons, has been pressing for an SX

If NEC can really best Cray by a fact of 10, such a purchase "becomes comp ling," says Frank McMahon, Livermo supercomputing expert. Adds O Ridge's Dongarra: "From a standpo of national security and all other issu I think [weapons labs] will be compell to take a serious look" at the SX That's encouraging to NEC, which ho to install 20 SX-3s in North Amer by 1993.

SOFTWARE LEAD. Japan's main pr lem in cracking the sophisticat U. S. market is a comparative lack software. While a few large custo ers such as Livermore can write th own, most want access to prov software designed for their spec jobs. Cray boasts of a pool of such programs, while Japan's ind try leader, Fujitsu, can point to j 300—hardly any of which are kno outside Japan. "Users don't need 500 programs running on Cray," c tends NEC Senior Program Manag Akihiro Iwaya. "By the end of n year, the applications that matter all run on the SX-3." Even so, C maintains a strong lead in progra called compilers, which help ot programs run faster.

Closing the supercomputer s ware gap has become a top priority Japan. NEC and Fujitsu have adop American Telephone & Telegraph C Unix operating system, a de facto st dard that should help them attract m programs written for Crays, which a run Unix. And all three Japanese sup ers are paying U. S. software compan to adapt popular programs to their ha ware. This summer, for instance, Fuji began working with Chicago-based s ware company KBS2 on automo crash-simulation software.

Still, even as Japan struggles to ahead of U. S. champion Cray Resea it must address a speedier, more c plex form of supercomputing wh U. S. dominance is even stronger—m sively parallel computing. This enti ganging together hundreds or e thousands of processors to work problems en masse. Danny Hillis, founder and chief scientist of Think Machines Corp., a leader in the fi figures America has a jump of at l several years. For Japan to catch up says, "we'd have to blow our lead standing still." And that, he adds, is about to happen.

By Neil Gross in Tokyo and Gary Mc liams in Boston, with Russell Mitchel Washington

WHOSE SUPER IS SUPER?

SUPERCOMPUTER BENCHMARK RATINGS

	Lapack score*
NEC SX-3/14	3,897
FUJITSU VP 2600/10	2,919
HITACHI S-820/80	NA
CRAY Y-MP	324
CRAY Y-MP/8 (8 PROCESSORS)	2,144

*Measures how quickly a machine solves a batch of 1,000 linear equations. Numbers given are megaflops, or 1 million floating-point operations per second—i.e. multiplications and/or divisions of numbers including decimal points

DATA: JACK DONGARRA, UNIVERSITY OF TENNESSEE

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THE TOO-WIDE WORLD OF TELEVISION SPORTS

The glut of games has Joe Sixpack tuning out, advertisers turning off, and broadcasters sweating

If you're like most sports hounds, your best friend these days is the remote control for your Sony.

All weekend long, battened down in your Barcalounger, you roam from channel to channel: A dozen college football and basketball games on Saturday. Twelve hours of pro football on Sunday. Maybe some beach volleyball and English League soccer on cable for a change of pace. Or *American Gladiators*, an updated version of the Roman sport in which well-padded combatants push each other around. Then on Monday, it's back to kickoffs and kibitzing with Frank Gifford, Dan Dierdorf, and Al Michaels on *Monday Night Football*.

And you're just a regular viewer. Seriously addicted sports junkies never get a rest: The three networks and cable systems aired 7,300 hours of sports programming in 1989, up from 4,600 in 1980. New multiyear TV contracts with major college associations and pro sports leagues will turn the steady stream of new programming into a torrent. This season, for example, the National Collegiate Athletic Assn. contract provides for nearly 1,200 live or taped college basketball games. As ESPN sportscaster Dick Vitale would say: "It's gonna be rock 'n' roll, baby!"

Rock 'n' rout is more like it.

LOSING SEASON. Measured by ratings and ad revenue, ABC's *Monday Night Football* is having one of its worst seasons ever. On Nov. 25, the San Francisco 49ers and New York Giants wrecked ABC's big chance to revive the lagging broadcast: By losing to the Los Angeles Rams and Philadelphia Eagles, respectively, the 49ers and Giants turned their upcoming Dec. 3 match from a clash of undefeated titans into just another big game. ABC won't comment, but media buyers say *Monday Night Football*'s lower ratings have forced ABC to discount as much as 50% to attract ads.

CBS lost almost $100 million on [illegible] World Series when the Cincinnati R[illegible] swept the Oakland A's in four gam[illegible] and it's losing millions more on the [illegible] tional Football League this season. [illegible] blames most of its $35 million fou[illegible] quarter loss on sports. Says Jay Ros[illegible] stein, vice-president for programming [illegible] CBS Sports: "The marketplace is soft [illegible] cause there is a glut of inventory."

Americans have had a gargantuan [illegible] petite for televised sports ever since [illegible] broadcast its first grainy images o[illegible] baseball game between Columbia [illegible] Princeton in 1939. But now even [illegible] most insatiable fans are feeling bloa[illegible] "Of course there's a glut," says Da[illegible] Halberstam, whose book, *Summer of '49*, celebrates baseball before the ris[illegible] TV. "The play-offs overlap. The seas[illegible] all merge together. You end up kil[illegible] the goose that laid the golden egg."

It's not that people aren't watch[illegible] sports anymore: Viewership has [illegible] mained roughly constant, according [illegible] media experts. These days, thou[illegible]

uch potatoes can choose from a vastly rger array of programs. So they watch ss and less of each telecast. "You have e same audience. It's just being frag-ented," says Paul Schulman, a top me-a buyer. Between 1980 and 1989, the erage audience for network sports lecasts dropped by 920,000 households, cording to A. C. Nielsen Co. (charts).

ICY CONTRACTS. For TV executives, the ut comes at an awful time. In the past months, the networks and cable oper-ors negotiated a series of shoot-the-oon contracts to lock up rights to the e most popular TV sports. Led by CBS, ich paid almost $1.1 billion for Major ague Baseball, the nets and cable po-d up $7.4 billion for baseball, the NFL, e NBA, NCAA basketball, and college otball. But now that TV executives ve lots of sports to sell, they're find-g that advertisers are spending less. Major sports advertisers such as Gen-al Motors Corp. and Ford Motor Co. e cutting their ad expenditures as the onomy slips into recession. The down-rn is also hurting print media: *The tional*, a 10-month-old daily sports per, has laid off employees as it strug-es to lure advertising. Worse, it's at-acting 30% fewer readers than it pro-ted in many of its 12 markets.

The networks are losing viewers to tional cable outfits such as ESPN, TBS, d Sportschannel America. ESPN alone aches 63% of U. S. TV households. And regional sports networks have sprung since 1986. The biggest, Prime Ticket Los Angeles and Madison Square Gar-n in New York, each claim about 4 llion subscribers.

Cable has hurt the networks most in widely televised sports such as pro football. The average audience for *Monday Night Football*, for example, has been declining for a decade. But it dropped by 1.7 million households from just last year. It's no coincidence that this season the NFL handed eight Sunday night games apiece to ESPN and TNT, the No. 2 cable network of Turner Broadcasting System Inc. "What happens is that [the stations] begin cannibalizing themselves," says Frank Deford, editor-in-chief of *The National*.

CBS may have lost its $1 billion bet on baseball

Lower ratings mean less ad revenue. ABC used to command up to $250,000 for a 30-second spot on *Monday Night Football*. This season, it's peddling the time for as little as $125,000. Media buyers say the nets are selling time on other sports programs at a 50% discount, too. And advertisers are growing more choosy. They're funneling ad dollars into marquee events such as the Super Bowl and the NCAA Final Four, where they can count on decent ratings. Anheuser-Busch Cos. has reduced spending on golf and tennis. It still plans to spend heavily on the Bud Bowl, its ad extravaganza during the Super Bowl broadcast.

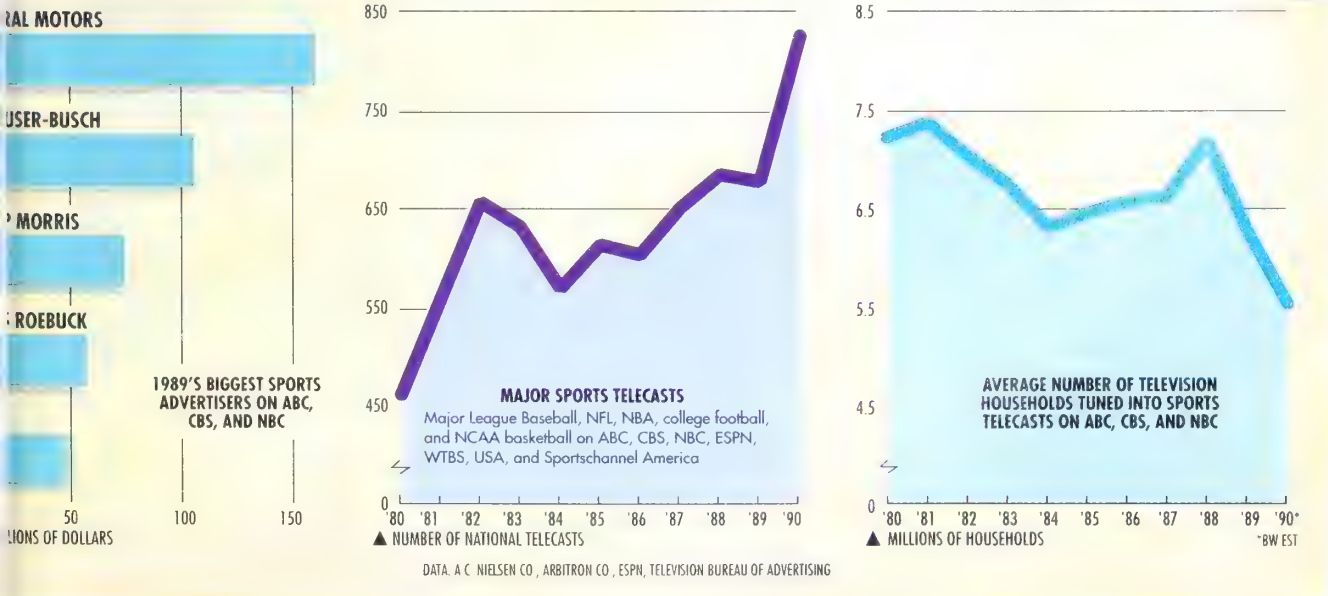
But not even big-name events are a sure bet: Nike Inc. bought time for ad campaigns in the last two World Series, both of which were ratings disappointments. Says Scott Bedbury, Nike's advertising director: "With back-to-back blowouts, you do ask yourself, 'Gee, was that a smart place to make a major product introduction?' " Still, advertisers don't mind the surfeit: They're now in a position to pick up some choice deals. GM has already negotiated multiyear pacts on basketball and football to cushion itself from rate hikes. Officials of big-time pro and college sports aren't kicking either. They'll be able to bargain hard at contract-renewal time, because sports still deliver masses of male viewers.

The nets, on the other hand, will suffer. CBS once predicted that it would eventually break even on its baseball deal. Now it must face the gloomy prospect that it may have lost its billion-dollar bet. Cable also is hurting: Turner's TNT is absorbing big losses for its $445 million NFL contract.

Some sports fans grouse that major sports let TV dictate their schedules. In 1992, the NFL will push the Super Bowl into February to capitalize on the "sweeps" period, when networks air their most competitive programs. Says Art Modell, owner of the Cleveland Browns and a key negotiator of the NFL contract: "The engine that drives all sports is television. Let's face it."

But sports-addled broadcasters must face something else: Too much sports could drive them into the ground.

By Mark Landler
in New York



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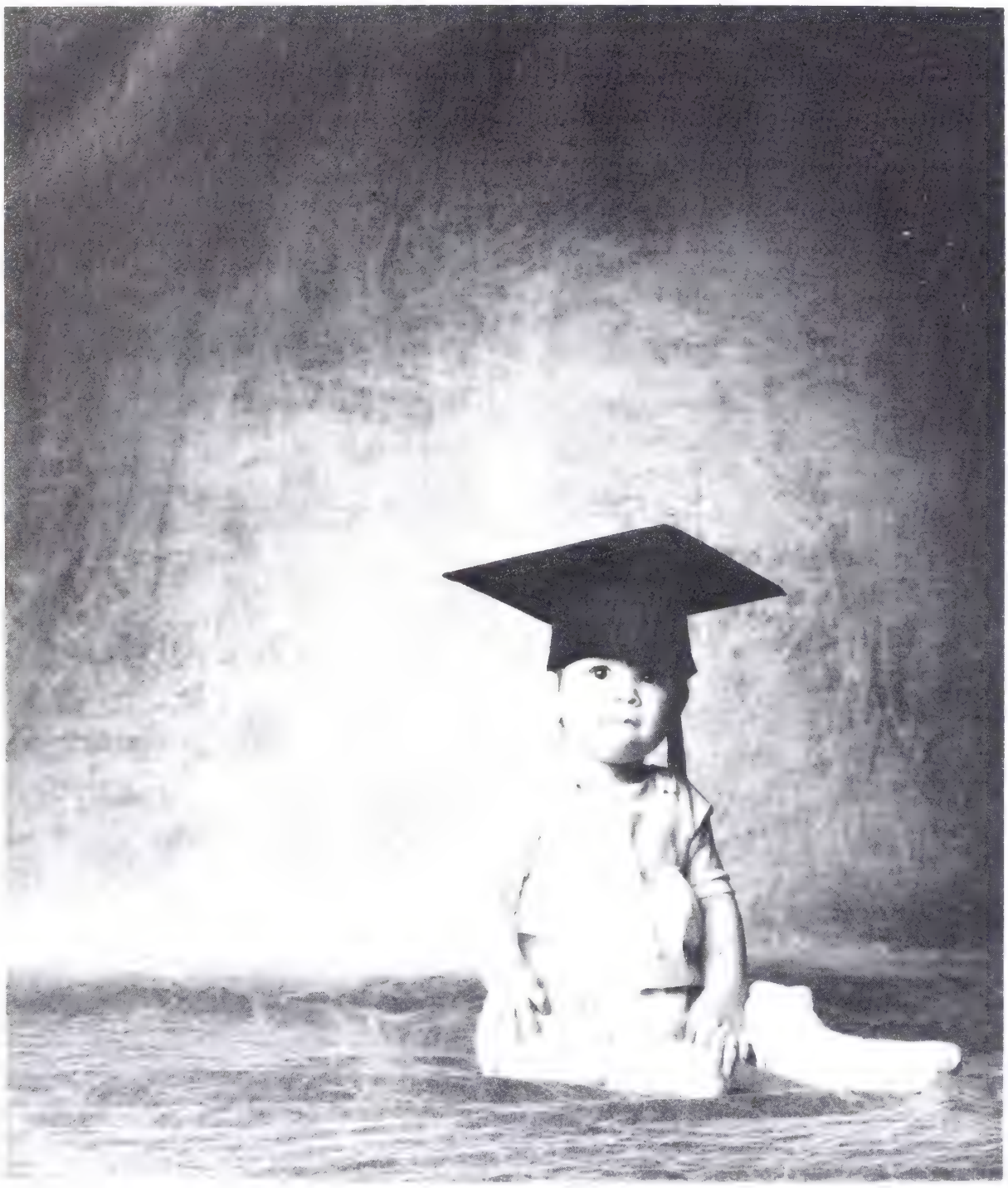

If the cost of a college education seems expensive now, imagine what it will be in 18 years. That's why when it comes to college, Bonds are better than ever before. For years, they've been exempt from state and local income tax. Now, Bonds bought for your children's education can also be free from federal income tax. Which means most people can keep every penny of the interest they earn.

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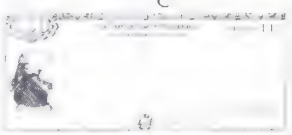
U.S. Savings Bonds



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That's because you and your company split the ownership, and hence the cash value and death benefit rights. You own the policy, but since your company will eventually want its premium payments back, often with interest, you sign the cash value over to it as collateral. So initially you only own the death benefit.

When the plan has run its course, the paid-up policy, including the cash value left after the company recoups its premium payments, is all yours. You can keep the policy in force, borrow against it, cash out, or convert it into an annuity that pays you regular income. Of course, if you cash out, you've walked away from one of the few tax shelters left, and unless you've contributed to the premiums, you'll be taxed on the entire cash value. To minimize the tax bite, some companies have employees pay part of the premium, while compensating them for the cost.

In relatively few cases, the company owns the policy and endorses the death benefit over to you. When the company eventually transfers the entire policy, the tax situation gets tricky. "The IRS could say the entire cash value might count as taxable income," says David Bohl, a tax manager in Arthur Andersen's Milwaukee office.

ESTATE TAX. Getting a split-dollar policy mandates estate planning. Death benefits from any form of life insurance are exempt from income tax as long as your spouse is the beneficiary. But if anyone else is, the proceeds may be subject to estate tax at a rate of up to 55%.

To protect your split-dollar proceeds from such an unkind cut, you can set up an irrevocable trust as owner and beneficiary. Then, if you live for at least

SPLIT-DOLLAR INSURANCE: HOW COSTS AND BENEFITS CAN GET DIVVIED UP

	COMPANY'S SHARE			EXECUTIVE'S SHARE*		
Year	Premium payment	Cash value	Death benefit	Tax cost	Cash value	Death benefit
1	$10,010	None	$10,010	$185	None	$489,990
10	10,010	96,747	100,100	293	None	460,695
18	10,010	180,180	180,180	509	134,079	657,733
20	None	None	None	None	183,993	525,364

*Assumes interest rate of 8% with death benefit of $500,000 for a 45-year-old in 31% tax bracket; company recoups costs in year 18

DATA ERNST & YOUNG

ars after transferring the
licy, the proceeds will neat-
sidestep the estate taxes.
Some employers are offer-
policies particularly suited
estate planning: second-to-
policies to be placed in an
evocable trust. Says Wil-
n Brennan, a partner with
nst & Young in Washing-
n: "It's attractive if you
ve illiquid assets like real
tate." When the second
use dies, the policy pro-
ds go into the trust, which
lend money to the estate
buy assets from it.
Think twice, though, if your
npany starts talking about
erse split-dollar insurance.
this twist, the executive
ns the cash value and the
npany has the right to the
th benefit. This way, a
npany can provide an exec-
ve with a pot of tax-de-
red savings without run-
g afoul of IRS rules that
uire the company to offer
same benefits to others. It
offers key-person insur-
e for a closely held firm.
END? But reverse split-
lar plans can have nasty
ate-tax consequences. "The
situation is questionable,"
s Arthur Spector, a vice-
sident at Metropolitan
e, which won't market
h policies. If you die while
ployed, your estate may be
ed on all policy proceeds,
uding the death benefit
employer gets.
Classic split-dollar plans
k out to be cheaper than
ing insurance on your
. "If the employer were to
give an annual premium
$10,000 to the individual
say, 'Here, it's yours,' the
vidual would be taxed on
$10,000," notes Alan Na-
a partner at Arthur An-
sen in New York.
plit-dollar has an edge
r other pension supple-
its, too: You needn't wor-
whether your employer
be able to deliver on its
mises. Now, you just have
worry about the insurer.
ck that it's rated at least
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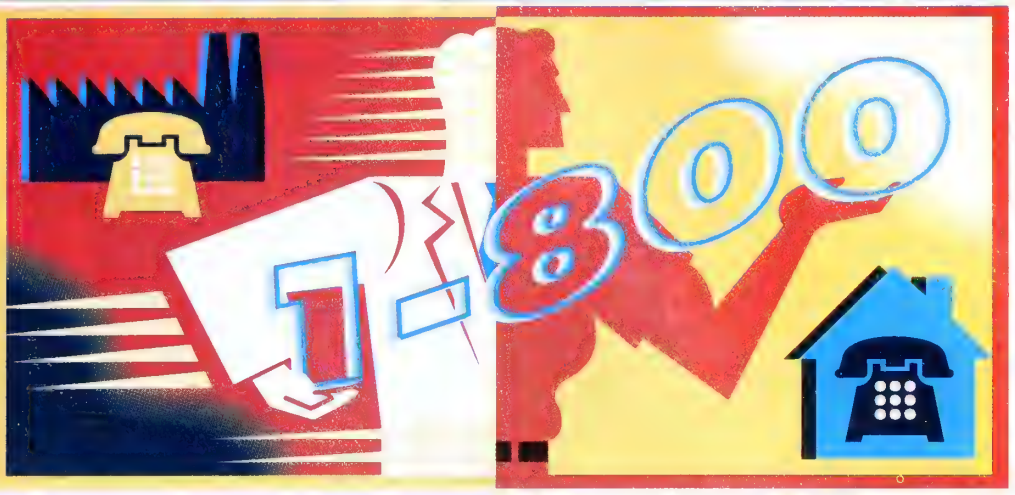
all, this perk is of more
n passing interest to you
yours. *Suzanne Woolley*



Phoning

WHEN A HOME 800 NUMBER MAKES SENSE

The 800 number, that staple of customer-service departments and mail-order companies, is coming home to roost. Three long-distance carriers—MCI, U. S. Sprint, and Call Home America, a small independent—have begun offering toll-free numbers for residences. While the quintessential client is a family with kids away at school, 800 numbers can save money for executives calling home while on the road or for small business owners operating from home.

The three carriers' offerings all work about the same way. An 800 number is assigned to your existing phone. Once it's installed, a caller dials the number free of charge. The bills, of course, come to you. Because the calls are incoming, not outbound, you can sign up for a carrier's 800 number even if you don't use its regular long-distance service.

FEE PLANS. Billing varies significantly. In the Sprint version, after a $50 installation fee, you'll pay a $10 monthly charge. Calls will be billed during the day at 4¢ a minute less than Sprint's discount day rates and 1¢ to 3¢ higher per minute than discount rates during nights and weekends. (The rate is based on the caller's time of day.)

MCI doesn't charge for installation, but it does have other fees. If you already are an MCI subscriber—or become one—the company will charge you $2 a month for its 800 service, plus 11¢ a minute for each call during plan hours (weekday evenings, nights, and weekends) with a $6.50 minimum per month; the price is a steep 25¢ a minute outside plan hours. If you're not an MCI subscriber, you'll be charged $5 a month and 25¢ a minute for all calls.

RINGING UP 800 TOLLS

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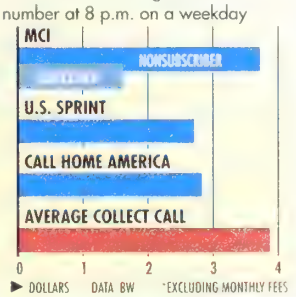

Call Home America—which buys phone-line time from the major carriers and resells it at a markup—charges $3.75 a month for its 800 service, plus 24¢ a minute during the day and 17¢ a minute at night and on weekends.

Which 800 service is the best deal depends on your long-distance calling patterns. But usually it's best to stick with your own carrier. If you already are a Sprint customer, it would make little sense to go for MCI's service, given the high per-minute charges and the $5 monthly fee. But MCI makes it attractive for its own subscribers to sign up for its 800 service.

As for Call Home America, it might work best for those who use a third carrier, such as AT&T. The former Ma Bell has no residential 800 number; instead, it offers "Call Me" service, in which callers use a credit card that's good only for your number. You pay an 80¢-per-call surcharge.

HEAVY USERS. To benefit from any of these services, you have to be a fairly frequent long-distance user. Normally, a caller is charged about 75¢ extra for each credit-card call, $1.75 more for each collect call, and $3.50 more for each collect person-to-person call. So in the case of Sprint—which charges $10 a month for the service—you'd have to pay for at least 14 credit-card calls, seven collect calls, or three collect person-to-person calls in a month to make an 800 number worthwhile.

800 service clearly could cut your phone bills. But beware: It may be so inviting that the calling volume will increase, more than offsetting the lower rates. But that, no doubt, is what MCI, Sprint, and Call Home America are hoping for. *Mark Lewyn*

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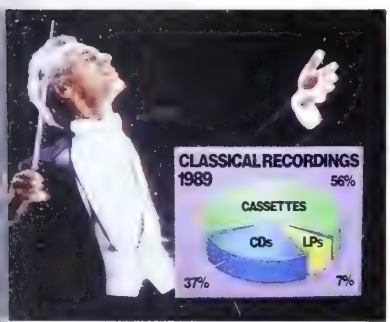

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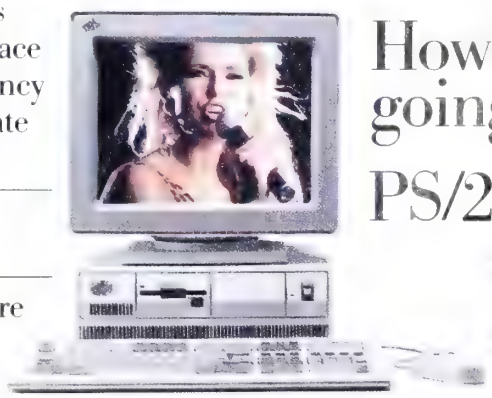

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Potables

CALIFORNIA'S SPARKLERS ARE BIG STARS

French champagne prices have mounted steadily this year, and it's hard to find a nonvintage wine under $20 a bottle. But you need not spend the holidays crying in your bubbly—not with a fine alternative produced right here at home. The quality of California sparkling wines "has gone up dramatically in the last three years," says Michael Boyd, owner of Michael's Wine Cellar, a shop in Corte Madera, Calif. That's why one item on his recommended list is Roederer Estate at $16.49.

Yes, the name has a familar Gallic ring. Roederer is just one on a who's-who list of prestigious French producers now operating in Northern California. Others include Piper Heidsieck's Piper Sonoma Cellars winery, Mumm's Domaine Mumm, and Moët & Chandon's Domaine Chandon. These labels prove that California sparklers have come a long way from the cheap, sweet punch-spikers of years past. Not that you'd know it from the price: Noted New York wine retailer Sherry-Lehmann is carrying the delicate apple and citrus flavors of Mumm's Napa Cuvée at $10.95 a bottle; Domaine Chandon's fresh Napa Valley Brut—Sherry-Lehmann President Michael Aaron's vote for best California buy—is $12.49.

WEST COAST BUBBLY: HOMEGROWN BARGAIN

COOL BREEZES. Experts believe the toasty, creamy flavors of native French champagnes will forever elude California producers because of the different soils. However, much of the dry French style has successfully crossed the ocean. Eileen Crane, managing director at Domaine Carneros, which is owned by French champagne maker Taittinger, says California sparkling wines "have become more delicate" overall. Her newest offering, the dry, complex Domaine Carneros, has been a hot seller this season at $15 to $17 a bott

"Carneros" is appea ing on more and mo California sparklin wine labels. This regio at the southern tip the Napa Valley, ge cool breezes from Sa Francisco Bay—ideal f the slow-ripening cha donnay and pinot n grapes grown ther Freixenet's Gloria Fe rer Champagne Cav winery produces a ri Carneros Cuvée usir those grapes. It cos around $20 a bottle.

But the foreign arri als aren't all that Ca fornia has to offer. Go homegrown labels i clude Sonoma County Iron Horse Vineyards' spa klers and Napa Valley Schramsberg Vineyards—e pecially its Blanc de Noi made entirely from pinot n grapes. At $21.45 a bottle, i definitely one of the more e pensive Californians—but gi en its premium taste, still bargain. *Joan Hamilt*

Insurance

FINDING YOUR WAY THROUGH THE 'MEDIGAP' MAZE

First, the good news: Congress just passed tough standards regulating medicare supplemental insurance. Now, the bad news—the rules won't take effect until 1992. So seniors who need coverage still face a bewildering array of options in "medigap" policies, so-called because they pay for expenses that medicare doesn't cover. Here are a few tips to keep in mind when shopping for yourself or for an older relative.

Those who already have medigap insurance probably shouldn't switch policies unless the new coverage is radically better: Chances are customers won't be covered for preexisting conditions when they sign up. Buying several policies is a waste of money—only one will pay benefits.

Policies can cost anywhere from $600 to $1,500. When you compare prices, keep in mind that the extra cost of an option may be more than the potential out-of-pocket medical expense: A policy may pick up the cost of prescription drugs, for instance, but the deductible for the option may exceed your expected annual drug costs.

Medigap policies routinely pick up the 20% share of doctors' bills that beneficiaries are required to pay. Many also offer coverage for doctors' charges that exceed the amount the government deems reasonable. But most policies set their own limits on the balance they pay. If your physicians "accept assignment"—charge what medicare pays—you may not need this option at all.

Some options are definitely redundant with medicare coverage. For example, many pol-

icies pick up some hospital e penses. But under medica patients hospitalized for fe er than 61 days pay only $6 of their hospital tab. And fe patients stay in a hospit longer than that.

BRIEF SPELLS. Don't expe that an option for skille nursing home coverage w pay for Alzheimer's or a other chronic disease. Th benefit is only for short-ter care after you're discharg from a hospital for an acu illness. And medicare pays t full cost of such care for t first 20 days anyway.

For further guidance, the are two good booklets: t National Association of Insu ance Commissioners' *Gui to Health Insurance for Pe ple with Medicare* (free fro your state insurance offic and *Managing Your Heal Care Finance* ($10 from t United Seniors Health Coo erative, 1331 H St. N. W Washington D. C. 20005). U til the new rules take effe they can help fill the inform tion gap concerning mediga coverage. *Susan Garla*

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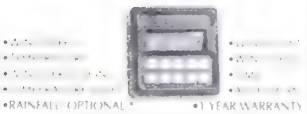

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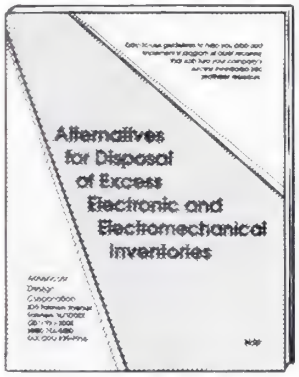

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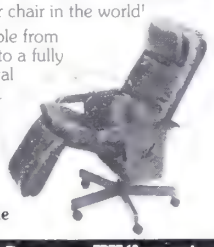

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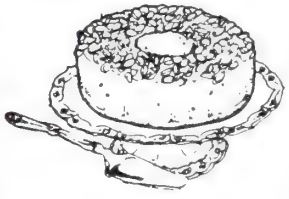

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Leisure

SHOULD AULD ACQUAINTANCE NEED A CHANGE OF SCENE . . .

Sure, all you really need on New Year's Eve is a bottle of bubbly, a noisemaker, and your main squeeze. But who says you shouldn't enjoy them someplace more exciting than your TV room? For those who can take a little time off, there are tempting travel packages to enhance that magic moment when '90 turns into '91.

Romance is the point of a short-but-sweet getaway offered by Air France. You and a loved one can board the Concorde at New York's JFK Airport on Dec. 28 and, after less than three hours in the air, check into Paris' four-star Crillon hotel for a three-night stay. Besides croissants and café au lait in the morning, you'll get a table at the hotel's black-tie dinner dance on New Year's Eve. The Crillon is run by the venerable Taittinger family, so look forward to great champagne. You'll return to New York by Concorde on New Year's Day. To reserve the $5,199-per-person trip, call 800 JET-1999.

Domestic travelers can enjoy Old World *luxe*, too. The American-European Express, a joint venture with the Nostalgie Istanbul Orient Express, will make a special New Year's Eve run from Chicago to Washington. Its restored Pullmans aim to evoke 1920s European train travel, with art deco appointments and baby grands in the club car. The $600 one-way fare, or $532 each for two, buys a sleeping compartment with private W. C. You can eat till you drop: The railroad provides afternoon tea, a cocktail reception, gala dinner, and midnight champagne toast. On New Year's morning, passengers spend a couple of hours at the Greenbrier resort in White Sulphur Springs, W. Va., for a country breakfast. Then it's back on the train for brunch and another tea before arrival in Washington. To book the 13-hour trip, call 800 677-4233.

Cruising the Caribbean also sounds romantic—until you imagine being trapped on a boat with 2,000 eager duty-free shoppers. Fortunately, there's a more exclusive alternative. Cunard Line's Sea Goddess I, a 350-foot luxury yacht, will take just 116 passengers on a seven-night sail from St. Thomas on Dec. 29, calling at four ports. The ship has a casino and an outdoor pool. Don't look for theme nights or costume balls on the Sea Goddess. New Year's Eve party, yes. Vegas-style shows, definitely no. Cost: $5,700 per person, double occupancy, including airfare from 24 cities.

LOBSTER BASH. If, on the other hand, you long to dress up as a flapper or sheik and dance to jazz-age tunes, head for Martha's Vineyard. The Harbor View Hotel in Edgartown (800 225-6005) had its heyday during the F. Scott Fitzgerald years. Now restored to its original 1891 splendor, it's giving a Roaring '20s New Year's Eve ball. The party includes dinner (this is Cape Cod, so order seafood), a swing band, and midnight champagne. A two-night package with breakfast costs $495 per person, double occupancy; three nights are $623.

It'll be warmer on the Pacific, where the Ritz-Carlton in chic Laguna Beach, Calif., does New Year's Eve with West Coast panache. Book a room with an ocean view, get in some golf or tennis, and dress to kill for the ballroom bash, where a 16-piece orchestra will entertain you between an opulent dinner and a bottle of Dom Perignon at midnight. The package also includes a cocktail party and New Year's Day brunch. Two nights are $1,265 per couple, three are $1,350. Call 800 241-2331.

Kids have rights, too, not to mention long school holidays. Overseas Adventure Travel (800 221-0814) offers three yearend trips designed for people who'd rather expose their children to giant tortoises than to Ninja Turtl... The Galapagos Family Adv... ture cruises the Ecuadoran... lands for close encount... with penguins, iguanas, a... the famous blue-footed b... bies, plus a look at Quito a... Indian markets on the ma... land. A Nepal Family Trek ... fers easy hiking and camp... in the land of the Sherpas ... explore Kathmandu and g... at Mount Everest. And ... Serengeti Family Safari ... tures wildlife viewing and ... its to Masai villages in K... Africa. The two-week t... run from $1,790 to $2,555 ... person, plus airfares.

Closer to home, you can ... a head start on your N... Year's resolutions but ... party hearty on the big ni... At the Safety Harbor Sp... Fitness Center near Tam... (813 726-1161), they susp... weight-watching for a la... New Year's Eve feast. Gu... indulge without guilt, bec... next morning they go r... back to pumping iron, aer... cizing, boxing, and 900 ... ries a day. A week in a s... dard double room costs $1... per person. *Joan Wa...*

Worth Noting

■ **LAST CHANCE.** With pr... dollars in a flexible spen... account, it's use-'em-or-... 'em time. If your health ... costs for 1990 are fal... short, you have until De... to spend what you have... aside for eyeglasses, phy... exams, and the like. Em... ees forfeited an averag... $195 to their companie... 1989, warn consult... Towers Perrin.

■ **TOY TALK.** The *Oppen... Toy Portfolio* tells pa... which are the best and d... est toys. A year's subscri... to the quarterly pamp... from child-development... pert JoAnne Oppenheim ... $20 Call (800 544-8697).

■ **DO'S AND DON'TS.** *The ... of Your VCR* is a hum... 15-minute video to help ... vent damage to recorders ... cassettes. Done in the st... a 1950's sitcom, it's $9.... mail (800 445-3800; ask f... erator 1,000.)

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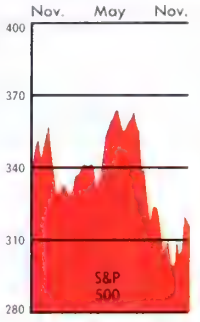
nvestment Figures of the Week

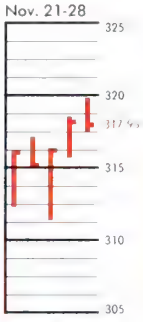
MENTARY

markets treaded water most e week. Continued rumblings the Persian Gulf, and pessi- about the economy, caused and bond prices to show lit- e. The dollar, likewise, mean- d listlessly. One exception to lum norm: Small-company s outpaced larger issues in a sal of the pattern that has iled in recent months. Bank nsurance stocks also are on end. Bulls are finding solace chnical indicators, including at insider sentiment.

STOCKS

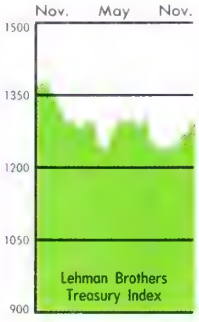


52-week change **–7.5%**



1-week change **–0.8%**

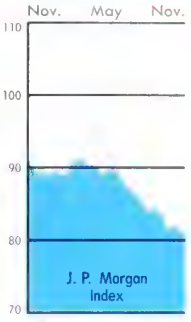
BONDS



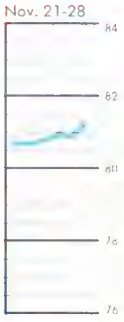
52-week change **–4.7%**

1-week change **+0.2%**

THE DOLLAR



52-week change **–10.3%**



1 week change **–0.7%**

ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
JONES INDUSTRIALS	2535.2	0.2	–5.7
COMPANIES (Russell 1000)	164.6	0.9	–9.0
L COMPANIES (Russell 2000)	126.0	1.5	–25.0
COMPANIES (Russell 3000)	173.8	0.9	–10.0

IGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
ON (FINANCIAL TIMES 100)	2144.3	1.4	–4.9
O (NIKKEI INDEX)	23,053.9	–0.7	–37.7
NTO (TSE COMPOSITE)	3144.7	1.2	–20.3

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.3%	7.4%	7.9%
30-YEAR TREASURY BOND YIELD	8.4%	8.5%	7.9%
S&P 500 DIVIDEND YIELD	3.7%	3.7%	3.2%
S&P 500 PRICE/EARNINGS RATIO	14.6	14.5	14.2

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	331.8	333.7	Negative
Stocks above 26-week moving average	22.0%	20.1%	Positive
Speculative sentiment: Put/call ratio	0.49	0.46	Positive
Insider sentiment: Vickers sell/buy ratio	0.39	0.41	Positive

DUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
JOR REGIONAL BANKS	21.1	–37.7	NCNB	49.3	–45.2	25 3/4
SONAL LOANS	21.1	–39.7	HOUSEHOLD INTERNATIONAL	30.9	–51.4	27
INGS AND LOANS	20.3	–32.7	GOLDEN WEST FINANCIAL	32.9	–14.9	24 1/4
ES	20.2	–11.4	NIKE	31.9	19.7	35 7/8
PERTY-CASUALTY INSURERS	18.3	–14.8	CONTINENTAL	49.6	–29.3	24 1/8

-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
G-DISTANCE TELECOMMUNICATIONS	–9.5	–34.7	MCI COMMUNICATIONS	–33.9	–58.2	19 3/4
LUTION CONTROL	–7.3	–14.1	BROWNING-FERRIS	–24.4	–43.1	21 1/4
CHINE TOOLS	–4.5	–46.0	BROWN & SHARPE	–20.0	–31.3	8 1/2
MINUM	–4.3	–17.1	ALCAN ALUMINUM	–7.9	–19.2	17 3/8
D MINING	–3.8	–25.0	ECHO BAY MINES	–26.4	–57.6	8

UTUAL FUNDS

ERS

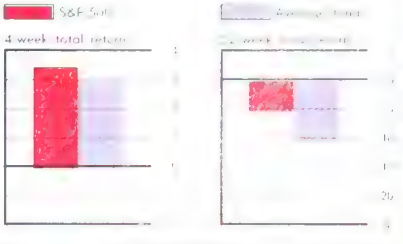
eek total return	%
ELITY SELECT COMPUTERS	12.4
IFIED GROWTH	11.8
ELITY SELECT TECHNOLOGY	11.0

ek total return	%
ELITY SELECT BIOTECHNOLOGY	32.6
JITY STRATEGIES	20.6
ELITY SELECT HEALTH CARE	19.0

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–16.8
EQUITY STRATEGIES	–12.7
FIDELITY SELECT ENERGY SERVICE	–8.0

52-week total return	%
SHERMAN DEAN	–49.5
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–48.3
PRUDENT SPECULATOR LEVERAGED	–47.4



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each portfolio

tages indicate
y total returns

Money market fund	Treasury bonds	U. S. stocks	Gold	Foreign stocks
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+0.14%	+0.87%	–0.39%	+1.00%	+0.16%

on this page are as of market close Wednesday, Nov. 28, 1990, unless otherwise indicated. groups include S&P 500 companies only; performance and share prices are as of market close Nov. 27. Mutual fund returns are as of Nov. 23. Relative portfolios are valued as of Nov. 27. A more detailed explanation of this page is available on request

THE RIGHT SENTENCE FOR MILKEN

Michael R. Milken seems to bring out the most extreme views in otherwise reasonable people. To some, he is an archvillain, the man most responsible for the financial excesses of the 1980s. To others, he is a genius who created a new form of financing that allowed many young companies to grow. The truth, as usual, is harder to divine, and it may be years before we can weigh his confessed venality against his larger contributions.

So it is not surprising that Judge Kimba M. Wood's tough sentence has drawn both high praise and contemptuous scorn. We admit to some ambivalence ourselves. But, on balance, we believe Judge Wood did the right thing. (For a contrary view, see page 30.)

Milken's sentence is tough only in contrast to those given to such other white-collar felons as Ivan Boesky (three years), Dennis Levine (two years), and Martin Siegel (two months). Clearly, Judge Wood wanted to send a strong message of deterrence against white-collar crime: No longer should these felons get off with a slap on the wrist. No longer should the rich and powerful be perceived as having special privileges. Milken's sentence isn't too tough. Boesky & Co. got off too easy.

Finally, Judge Wood made it clear that cooperation is important in prosecuting white-collar crime. By pleading guilty at the 11th hour and by failing to help prosecutors until after his sentencing, Milken did nothing to help himself or help root out the financial crimes of the 1980s.

Judge Wood has raised the price for white-collar crimes. So be it.

IT'S WAY TOO EARLY FOR WAR

Any military action by the U. S. and its allies to clear Saddam Hussein's forces out of Kuwait needs the approval of the U. N. Security Council. But what President Bush needs far more is a clear authorization from the American people if he is thinking of launching an attack against the Iraqis—a possibility raised by the increasingly warlike talk by the President and other Administration officials. Plunging the U. S. into war without such a political mandate would risk deeply dividing the nation.

That is why the hearings opened by the Senate Armed Services Committee on Nov. 27 are a vital examination of U. S. policy in the gulf. The important question is not whether the President needs a formal declaration of war by Congress before sending American soldiers into Kuwait and Iraq, but whether a broad consensus exists on what U. S. goals in the gulf should be, and what means should be used to achieve them.

What Bush seems likely to hear, loud and clear, is that most Americans are unconvinced that American lives should be expended to reverse Saddam's aggression. They h sound reasons for thinking so. With the virtual collapse communism and the end of the cold war, a decision to s American blood can't be justified as necessary to prever dangerous shift in the global power balance—a ratio often asserted for U. S. intervention around the globe du 40 years of U. S.-Soviet rivalry.

In lieu of military force, an economic embargo—one of tightest ever imposed—is exerting relentless press against Iraq. Its impact will increase over time. The U and its allies can and should wait—for a year or more necessary—for the embargo to convince Saddam that must withdraw from Kuwait. If he does not, and milit force eventually must be used, Saddam would be far wea by then and the cost in lives would be far lower. Despite impatience in the White House, the wise alternative is wait and see.

THATCHERISM NEEDN'T STOP HERE

British Prime Minister Margaret Thatcher was a f friend to the U. S. for more than a decade. From Libyan bombing raid to the gulf crisis, she ac decisively while other European powers shilly-shallied. sudden overthrow in a Tory party coup may look shock and risky. It isn't.

Her successor, John Major, is a tough-minded techno with true working-class origins and a dash of persua charm, but he's no ideologue (page 24). That's what Bri needs now to continue the economic makeover that Thatc began in 1979. Without a successful Thatcher revolution something like it, Britain is still condemned to unrelent economic and political decline—and diminishing value as ally. Major can complete the Thatcher revolution. The I Lady didn't have it in her anymore.

A glance at the economic numbers might suggest t Thatcher spent a decade leading Britain nowhere. Infla and pay boosts are in the double digits, productivity declining, and industrial production is sagging. But th numbers, important as they are, mask important chan that Thatcher wrought. Britain has become more entre neurial. Five times as many new businesses are created e year as when she came to power. Labor unions no lon routinely ransom the nation with their debilitating stri State-owned industry produced less than 4% of gross nat al product in 1989, compared with 10% in 1979.

These are important changes upon which Major n build. Short-term, he rightly figures he must deal with i tion. His experience in the Treasury and in the Fore Office will help him rebuild Britain's bridges to the C nent, where Thatcher was no longer receiving a hearing. his shot at greatness will come when he grapples Britain's class-ridden society. The fact that the new Pr Minister was Thatcher's protégé shows that she valued i it above origin. Britain's ill-educated population and un trained work force remain the biggest drags on the c try's economic performance.

NESS WEEK
) December 17

▶JAPAN'S SLOWDOWN ▶AT&T'S BIG GAME

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ILL IT WORK?
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BusinessWeek

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Its energy is supplied by a 210 SAE net horsepower, 3.8L, V-6, supercharged engine, linked to a 5-speed manual transmission. Precise control is enhanced by stabilizer bars, variable rate springs, tension struts and an isolated subframe. Just add a twisty road and you've got all the ingredients to make your Ford Thunderbird SC really hum.

Technology is the key to this sophisticated coupe's combination of high performance and driveability. Power rack-and-pinion steering that adjusts to your speed for optimum road feel. An automatic ride control suspension that allows you to adjust for performance an comfort parameters. Not to mention 4-whee anti-lock, disc brakes. And that's just a sampling of Thunderbird SC's engineering advances.

Thunderbird SC's interior is aptly suited t its performance. Articulated sports seats wit power adjustable lumbar support and side bolsters securely place you in front of its analog instrument cluster. Optional leather seating surfaces provide added style.

Buckle up – together we can save lives.

Humming Bird.

ecifications:

wertrain: Supercharged, sequential electronic injection, 3.8L, V-6, 210 SAE net hp @ 4000 rpm, lbs. ft. @ 2600 rpm, 5-speed, manual rdrive transmission

kes: 4-wheel, anti-lock discs

ering: Speed sensitive, variable assist, ver rack-and-pinion

es: Goodyear Performance Tires 25/60 ZR 16 97V

spension: 4-Wheel Independent, Automatic e Control

Technology, performance and style make Ford Thunderbird SC a true humming bird.

Ford. The best-built American cars... ten years running.

This is based on an average of consumer-reported problems in a series of surveys of all Ford and competitive '81-'90 models designed and built in North America. At Ford, "Quality is Job 1."

Ford Thunderbird SC

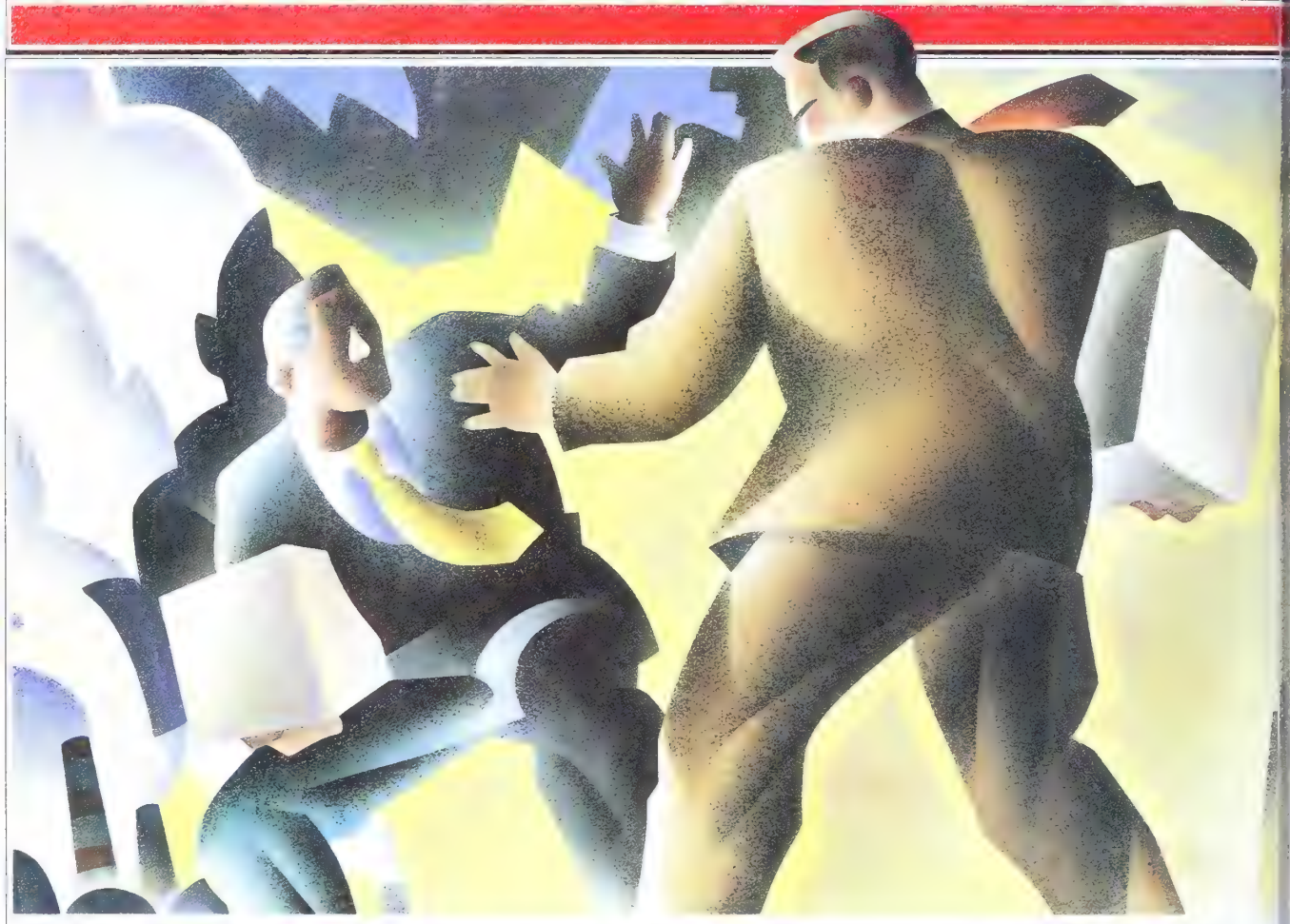
Have you driven a Ford...lately?

Ford

NUMBER 3192

BusinessWeek

DECEMBER 17,19



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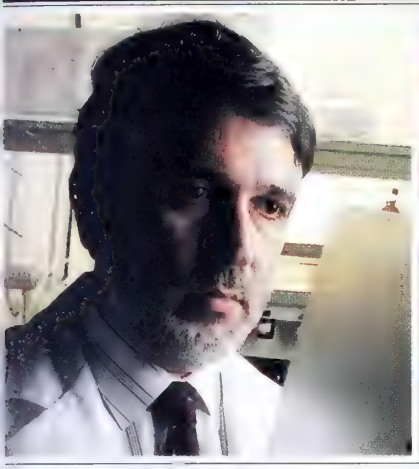

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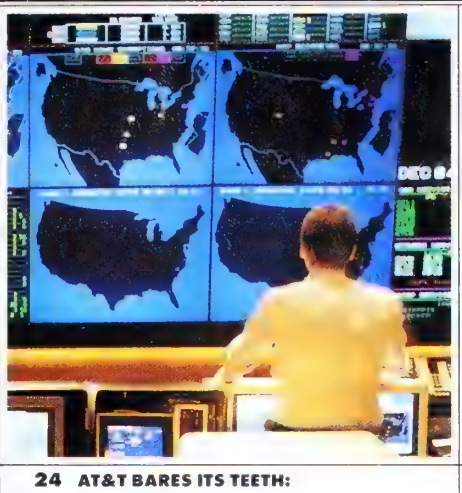

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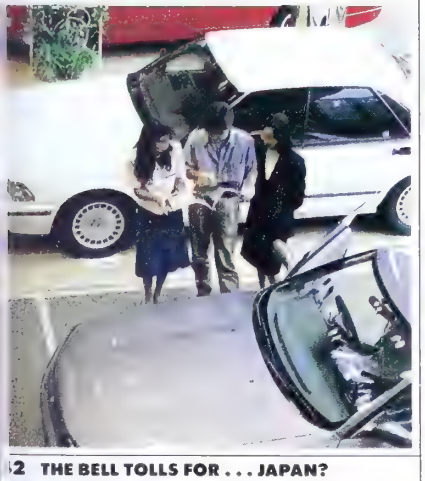

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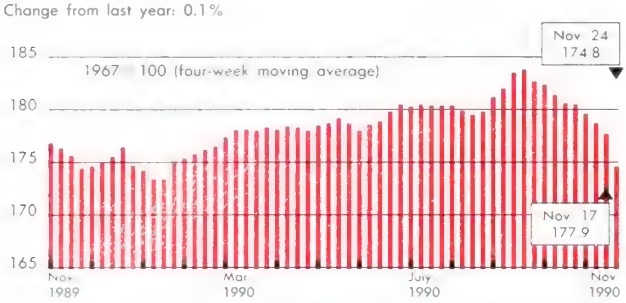
ness Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year CDN $54.95. Single es $2.00. Executive, Editorial, Circulation, and Advertising Offices, 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing es. Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520.

BusinessWeek Index

PRODUCTION

Change from last week: –1.7%
Change from last year: 0.1%

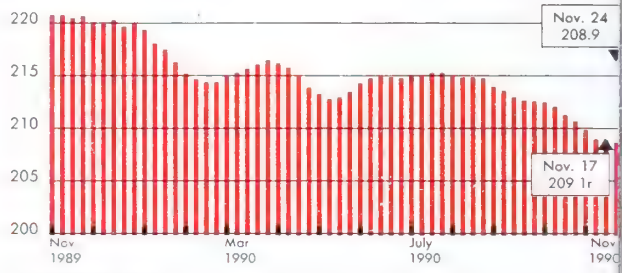


The production index plummeted for the week ended Nov. 24. On a seasonally adjusted basis, auto output and rail-freight traffic declined sharply, and electric power, coal, and lumber production were also down. Truck output jumped up, and there were increases in paperboard and crude-oil refining output. Paper production was unchanged from the prior week. Before calculation of the four-week moving average, the index fell to 167.8 from 175.5.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: –0.1%
Change from last year: –5.4%



The leading index declined again during the week ended Nov. 24, as the index signals continued deterioration in the economy. Lower stock prices, a bigger decelera ation in materials prices, and slower growth in real estate loans offset lower bond yields and faster growth in M2. Data on business failures were unavailable for the week. Before calculation of the four-week moving average, the index dropped to 209.1, from 209.6 in the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (12/1) thous. of net tons	1,831	1,904 #	10.1
AUTOS (12/1) units	108,302	76,504r #	–16.0
TRUCKS (12/1) units	65,629	46,875r #	–18.1
ELECTRIC POWER (12/1) millions of kilowatt-hours	52,312	49,855 #	–2.0
CRUDE-OIL REFINING (12/1) thous. of bbl./day	13,489	12,780 #	–0.4
COAL (11/24) thous. of net tons	17,242 #	21,265	6.9
PAPERBOARD (11/24) thous. of tons	783.7 #	741.7r	5.0
PAPER (11/24) thous. of tons	776.0 #	770.0r	4.4
LUMBER (11/24) millions of ft.	260.4 #	457.0	–25.1
RAIL FREIGHT (11/24) billions of ton-miles	16.8 #	21.1	5.7

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (12/5)	135	130	144
GERMAN MARK (12/5)	1.50	1.48	1.77
BRITISH POUND (12/5)	1.93	1.97	1.58
FRENCH FRANC (12/5)	5.09	5.01	6.06
CANADIAN DOLLAR (12/5)	1.16	1.17	1.16
SWISS FRANC (12/5)	1.28	1.27	1.60
MEXICAN PESO (12/5)[3]	2,924	2,933	2,661

Sources: Major New York banks. Currencies expressed in units per U. S. dollar except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (12/5) $/troy oz.	376.000	385.000	–6.7
STEEL SCRAP (12/4) # 1 heavy, $/ton	106.0	106.5	7.6
FOODSTUFFS (12/3) index, 1967 = 100	212.4	210.6	–0.2
COPPER (12/1) ¢/lb.	119.8	122.5	4.4
ALUMINUM (12/1) ¢/lb.	71.0	72.0	–7.2
WHEAT (12/1) # 2 hard, $/bu.	2.72	2.75	–38.0
COTTON (12/1) strict low middling 1-1/16 in., ¢/lb.	67.33	67.43	2.7

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chan year a
STOCK PRICES (11/30) S&P 500	318.56	316.44	–8
CORPORATE BOND YIELD, Aaa (11/30)	9.20%	9.25%	3
INDUSTRIAL MATERIALS PRICES (11/30)	101.8	102.2	–2
BUSINESS FAILURES (11/23)	NA	306	N
REAL ESTATE LOANS (11/21) billions	$384.8	$384.5r	8
MONEY SUPPLY, M2 (11/19) billions	$3,323.1	$3,319.0r	4
INITIAL CLAIMS, UNEMPLOYMENT (11/17) thous.	452	488	2

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chan year a
CONSTR. SPENDING (Oct.) annual rate, billions	$434.4	$428.9	2
NEW HOME SALES (Oct.) annual rate, thous.	491	509	–2
MANUFACTURERS' INVENTORIES (Oct.) billions	$377.3	$377.0	5
MANUFACTURING SHIPMENTS (Oct.) billions	$247.5	$243.3	4

Sources: Commerce Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Chan year
MONEY SUPPLY, M1 (11/19)	$823.6	$820.0r	8
BANKS' BUSINESS LOANS (11/21)	318.6	318.6r	–
FREE RESERVES (11/28)	886	733r	–1
NONFINANCIAL COMMERCIAL PAPER (11/21)	151.5	152.4	1

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed a two-week period in millions).

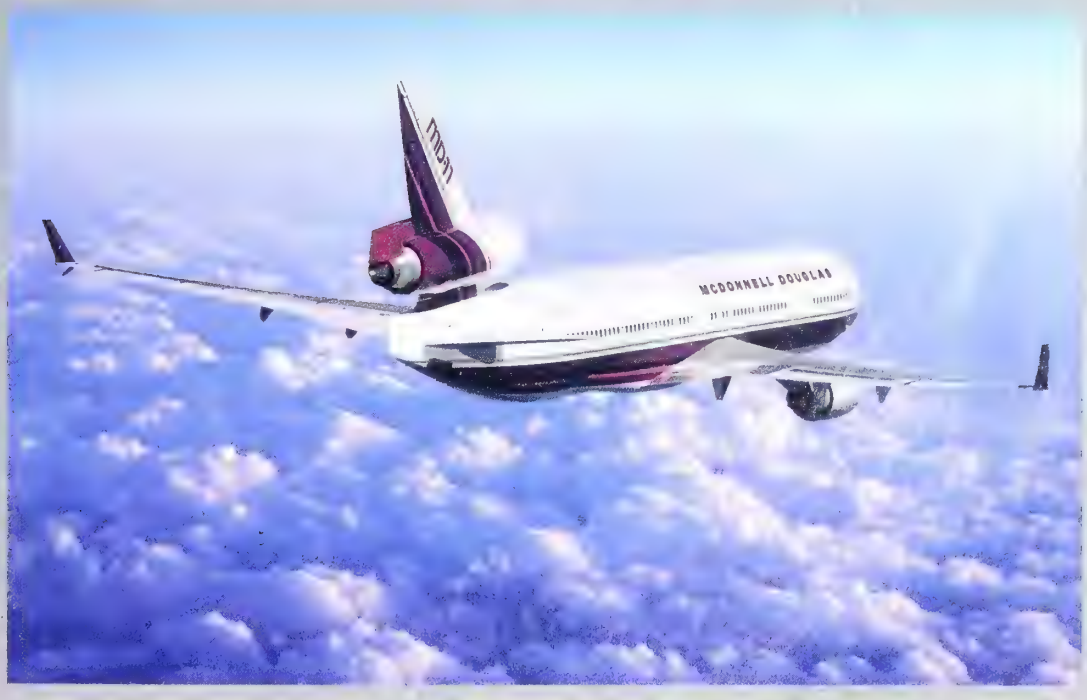
MONEY MARKET RATES

	Latest week	Week ago	Yea ag
FEDERAL FUNDS (12/4)	7.58%	7.62%	8.5
PRIME (12/5)	10.00	10.00	10.5
COMMERCIAL PAPER 3-MONTH (12/4)	8.04	7.98	8.2
CERTIFICATES OF DEPOSIT 3-MONTH (12/5)	7.35	8.26	8.2
EURODOLLAR 3-MONTH (11/28)	8.25	8.03	8.3

Sources: Federal Reserve Board, First Boston

# = Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipm
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

Introducing The MD-11. It Will Make Two Types Of People Significantly More Comfortable.



Passengers.

You'll find the cabin of the new MD-11 wider, to allow more room for seating and aisles. And higher, for more headroom. Together, they create a new feeling of spaciousness. Plus windows are larger, for more light. Cabin airflow is maximized. And noise levels are minimized.

Everywhere you look, you'll find comfort touches —from increased overhead storage for carryons, to improved lighting. We even gave the MD-11 the capability to have a TV monitor at every seat.

The MD-11 has the most advanced flight deck in commercial aviation. With flight management systems that offer maximum performance and ease of operation for the cockpit crew. To reduce the pilo work load even further, the automated flight contro system utilizes the latest digital aviation electronics

Look Who

AERO LLOYD · AIR EUROPE · AIR OUTRE MER · AIR LAITE · ALITALIA · AMERICAN AIRLINES · CHINA AIRLINES · CHINA EASTERN AIRLINES · DELTA AIR LINES · EVA AIR · FEDERAL EXPRESS · FINNAIR · GARUDA INDONESIA · GATX · GUINNESS PEAT AVIATION · JUR

And Pilots.

splayed on video monitors in the cockpit.
"Winglets" at each wingtip, developed in
)peration with NASA, reduce drag and increase
erformance and fuel efficiency. The result: The
D-11 is an extremely long-range airliner that can
erfly today's congested hubs. Including long,
er-water flights where its third engine adds an
tra degree of comfort.

The New MD-11.
Comfort On A Higher Plane.
MCDONNELL DOUGLAS

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A FRESH PERSPECTIVE ON COMPETITIVENESS

Over many years, our Special Reports have helped shape the debate about America's economic future. Among them: The Reindustrialization of America (1980), The Casino Society (1985), The Hollow Corporation (1986), Can America Compete? (1987), Human Capital (1988), and The New America (1989), our 60th anniversary issue. This week's Special Report—Can You Compete?—is in the tradition of provocative cover packages.

The U.S. is still the richest nation by far, based on gross national product, per capita GNP, and productivity. But the advent of a global economy is bringing wrenching changes. To put it bluntly, America's growth rate is well behind many of its global competitors, and the nation's educational system is deteriorating. Unless these trends are changed, Americans' standard of living will continue to decline.

To get a fresh perspective, a team of BUSINESS WEEK editors, led by Chief Economist Bill Wolman and Senior Editor Seymour Zucker, set aside many of the conventional measures for judging our prosperity. They simply don't tell us much in the new global economy. Associate Economics Editor Michael Mandel and Labor Editor Aaron Bernstein developed a way of reclassifying jobs and industries according to their performance in worldwide markets.

Senior Writer John Hoerr explores how better training can help the U. compete. With reporting from a numb of our news bureaus, Hoerr and Sta Editor Leah Nathans Spiro describe t stresses and strains of working for fo eign owners, and Associate Economi Editor Christopher Farrell tells how t public and private sectors must inve more in people and infrastructur

"You can feel America's decline your bones—and in your paycheck sums up Economics Editor Karen Pe nar. "But while there are no easy so tions . . . there are solutions."

Stephen B. Shepard

Editor-in-Chi

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In the age of information, survival still depends on hunters and gatherers.

In that modern-day tribe called a corporation, it's still the survival of the fittest.

And in the treacherous nineties, the fittest will certainly be the best informed.

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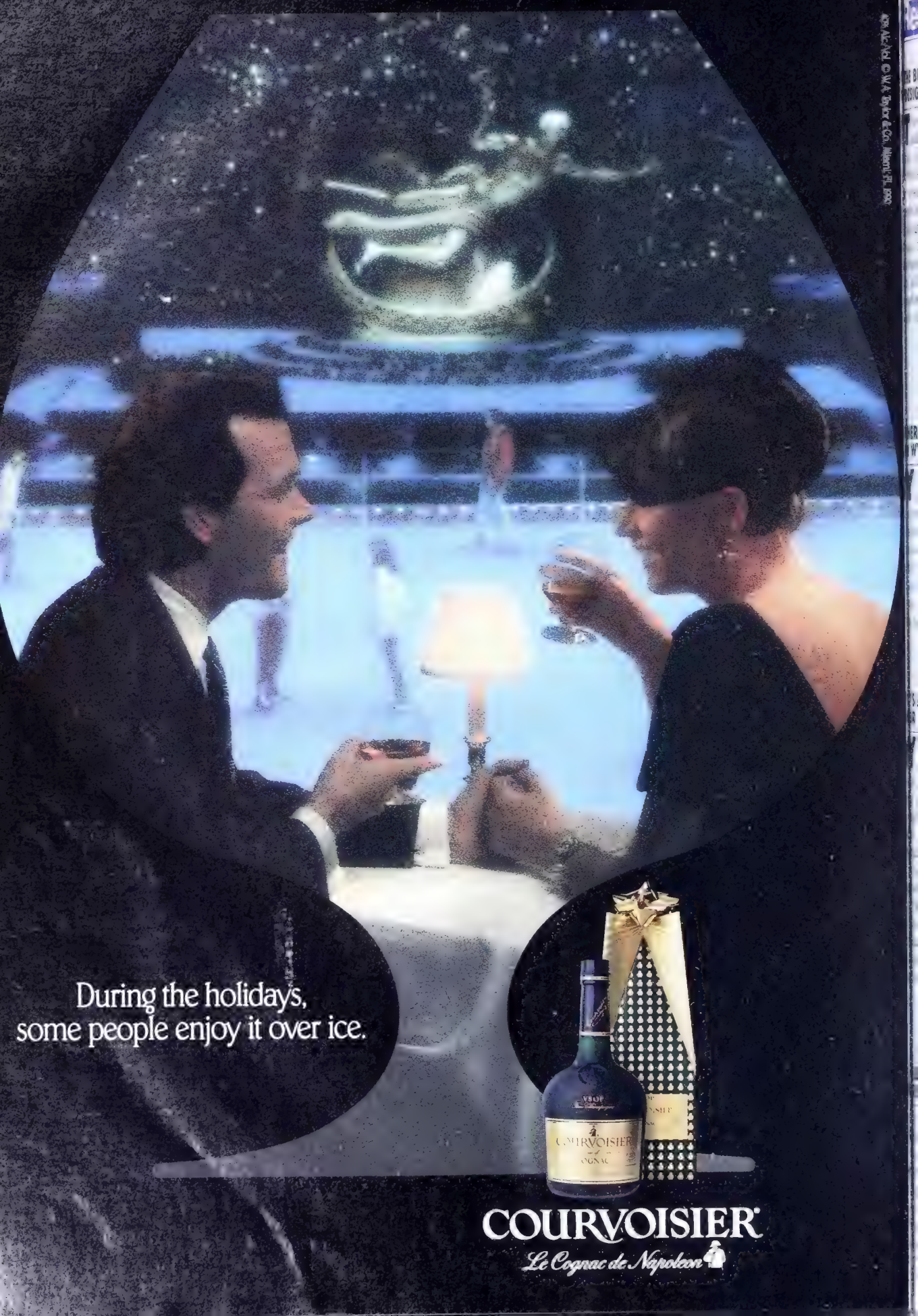
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some people enjoy it over ice.
COURVOISIER
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Readers Report

IE BEST MBAs DON'T ALL HAVE ESIGNER LABELS'

he public is hardly served by a jour-nalistic beauty contest among only e nicely endowed ("The best B-ıools," Cover Story, Oct. 29). There is wealth of effective and dedicated ırning taking place in places without esigner-label" degrees. If we really ınt to serve the public and free-market mpetition, let's publish factual profiles all schools and let a fully informed ırket decide where the "best" educa-n can be found.

Joseph M. Pastore Jr.
Provost
Pace University
New York

IERE'S STILL A DEMOCRATIC VOICE WYOMING'S STATEHOUSE

ou recently reported that the state of Wyoming has both a Republican vernor and legislature ("Now, the mocrats really have a lock on the ıuse," Cover Story, Nov. 19). Although :h the House and Senate are Republi-ı-controlled, Governor Michael J. Sulli-ı, a Democrat, has been reelected to second term.

Vanessa L. Forselius
Cheyenne, Wyo.

S *LA DOLCE VITA* R LEVI'S IN ITALY

our article "For Levi's, a flattering fit overseas" (The Corporation, v. 5) personifies the vitality of think-; globally at the very birth of any siness. In Italy, where Levi Strauss s the spunkiest and most seductive nmercials on TV, the masses eagerly ıticize anything American—to such an ent that some Italians pay up to),000 lire ($200) for a pair of Levi's ver Tab jeans at upscale boutiques in lan. Levi's has clearly set an auspi-us precedent that other American ap-el makers could hopefully emulate.

Shahram Haghighat
Tre Stelle International
Milan, Italy

ECURITY THAT MAY NOT ING YOU PEACE OF MIND

ı "The safe harbor of mortgage-ıacked bonds" (Personal Business, v. 5), you lead readers to believe that ying the z-tranche of a collateralized rtgage obligation is the same as buy-a zero-coupon bond. This is not so. e prepayment risk inherent in all rtgage-backed securities, as well as the structure of the entire CMO, must be carefully analyzed. The average life characteristics of these securities can be extremely volatile.

Is this an "ideal [investment] for the middle-aged investor looking to retire in 10 or 15 years"? I think not.

Joseph F. DeMichele
Assistant Vice-President
Conseco Capital Management Inc.
Carmel, Ind.

CORRECTIONS & CLARIFICATIONS

In the Corporate Elite special issue (Oct. 19), Consolidated Rail Corp. was characterized as "a debt-heavy railroad company." Conrail, with a debt-to-capital ratio of 38.6%, is one of the least leveraged major railroads.

"Everything you always wanted to know—by PC" (Personal Business, Oct. 1) stated that Dow Jones & Co.'s online data base could provide the full text of *New York Times* articles. It can provide abstracts of *Times* articles, but only Mead Data Central Inc. can provide the full text of the *Times*.

SO SHOULD WE FORWARD YOUR SUBSCRIPTION OR NOT?

After reading as much as I could of your "gloom-and-doom" issue ("Lost ground, hard feelings," Cover Story, Nov. 19): the bashing of Bush and the GOP, the recession that you seemingly would like to turn into a Depression, and melancholy views of our country and planet, I committed suicide.

This note is dispatched from heaven, where the spirit is much better than on earth. Thank heaven!

Tom W. Moore
Evanston, Ill.

STOP PLAYING PIN-THE-SLUMP-ON-RON

In Douglas A. Harbrecht's review "Fuzzy memories" (Books, Nov. 26), his last statement—"Yes, [Reagan] provided eight years of prosperity. But his policies will cause economic hardships for decades"—is hogwash, and unbecoming in a magazine as devoted to pride in America and its much-admired capitalism as BUSINESS WEEK is.

Carl W. Bettcher Jr.
Woodbury, Conn.

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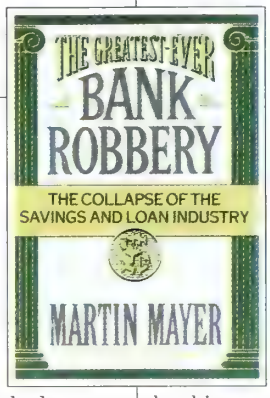
'HE S&Ls WERE A CRISIS VAITING TO HAPPEN



Psychoanalysts have a word for the mind's ability to erase the traumatic or overwhelming: scotozation. For millions of Americans, it ppens each night, when the news ns to $300 billion deficits, a trillion llars owed Japan, the $200 billion to)0 billion S&L crisis. Not knowing what ch numbers mean, and suspicious of yone who claims to, we blot them out. But the S&L mess doesn't quite fit the ttern. It costs like a megacrisis, but ; not about a flawed Hubble telescope budget-busting Stealth bombers. It's out the business of taking in savings d investing them in things as familiar houses—about as complicated as runıg the local dry cleaner.

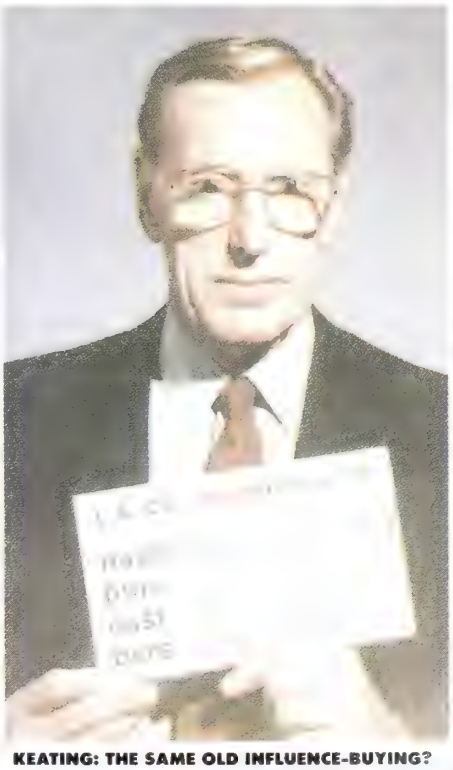
We should be able to understand what ppened, how to fix it, and who should time. Yet after three years of investitions and prosecutions, a dozen books, d as many TV specials, most of us are)re confused and angry than when we gan. We know that official Washıı, neck-deep in the scandal, is obfusıing. The national press, caught up in ; Beltway's scapegoating, isn't much lp, either. The best-selling S&L book so :, *Inside Job*, succeeded because au)rs Stephen Pizzo, Mary Fricker, and ul Muolo concentrated on telling a locrime story showing how, not why, ; hometown thrifts were looted.

Now comes Martin Mayer, a veteran pularizer of economic subjects. With *e Greatest-Ever Bank Robbery: The llapse of the Savings and Loan Instry*, he has given us the first full :ture of what happened and added me badly needed perspective. Mayer, ;o the author of *The Bankers*, is seaıed enough to recognize that it took ıch longer than a decade to wreck the lustry. He strips away the phony me-finance do-gooder image that ielded shady S&L owners for years and veals a bunch of brigands—as well as eir cousins, uncles, mothers-in-law, and andchildren—who lived well off your)ney long before Ronald Reagan reıed their most corrosive juices.

The industry was for decades "a pre:table point of entry for corruption in nerican finance" Mayer writes. "The l fashioned S&L was a nest of conflict-ı interests .... On its board were the ilder, the appraiser, the real estate broker, the lawyer, the title insurance company, and the casualty insurance company. Also the accountant."

Before we heard of supply-siders, junk bonds, M. Danny Wall, the Keating Five, and Mike Milken, the industry was infused with small-time corruption, cronyism, and political bribery, Mayer argues. When criminal elements moved in, the ethically deficient industry had "no antibodies to protect itself from the eruption of fraud and abuse."

Deregulation triggered the collapse. But Mayer shows that what deep-sixed



KEATING: THE SAME OLD INFLUENCE-BUYING?

the industry was not freeing up interest paid to depositors, but the wholesale relaxation of bank safety standards. The pretense that government was protecting the public interest also came to an end. Having quietly employed some of Washington's best lobbyists for years, the S&Ls now felt free to strut. When Lincoln Savings & Loan owner Charles Keating bankrolled five key senators, he was, in Mayer's view, practicing the same old influence-buying, only on a vastly grander scale.

While he recognizes Washington's role in the crisis, Mayer says that without Wall Street dealmakers, lawyers, and accountants to cloak the newly reckless S&L chiefs in respectability, many scams couldn't have endured. As goverment indictments flush out more of these Establishment players, Mayer's words seem prophetic: "What makes the S&L outrage so important a piece of American history is not the hundreds of billions of dollars but the demonstration of how low our standards for professional performance have fallen in law, accounting, appraising, banking and politics."

Wall Street investment houses, Mayer calculates, made the most off the swindle, by selling mortgage-backed securities and stuffing S&Ls with junk bonds. The accountants were "outrageous and dishonest" in permitting misstated balance sheets and profits year after year. The lawyers threatened honest regulators with personal suits and created legal mazes to hide their clients' "looting."

Mayer demolishes the bogus thesis that recession caused the crisis. When the government permitted S&Ls to pay whatever they wanted for insured deposits without regulating their lending, it was "asking to be robbed," as he puts it.

Though his tone is moralistic and sometimes cranky, Mayer isn't ready to write off the industry. He figures the final loss to be around $300 billion—"a disaster of earthquake but not quite catastrophic dimensions" that will at least bring real estate down to "realistic values." Mayer would reform what's left of the industry by cutting insured deposits to $50,000 from the present $100,000 and making all confidential bank examination reports public. He would also require S&Ls to do most of their lending locally. He doesn't know what to do about the decline of professional standards, except to ask if a nation can survive when money can buy any opinion.

The real outrage, Mayer points out, is that the public was robbed of the chance to decide how to spend those billions. At the scandal's peak, he notes, investigators referred 5,000 cases of criminal conduct to prosecutors. While he doubts most will ever reach a courtroom, you put down this book wishing the government would cut one more check—big enough to build a jail with 5,000 beds.

BY ROBERT J. DOWLING

Senior Editor Dowling has reported on and observed S&L venality for two decades.

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SURE, MILKEN'S SENTENCE WILL SERVE AS A DETERRENT—TO INNOVATORS

BY PAUL CRAIG ROBERTS

The prosecution of Milken raises more questions about the government's ethics than about Milken's. Now, business knows that the vagaries of RICO can destroy any firm or person with a political enemy

PAUL CRAIG ROBERTS IS CHAIRMAN OF THE INSTITUTE FOR POLITICAL ECONOMY IN WASHINGTON

The downfall of Michael Milken, Drexel Burnham Lambert Inc., and the junk-bond market may mean rough sledding for the economy in the 1990s. There is plenty of evidence to suggest that George Bush, the Republican Party, and the U. S. economy will come to rue the government's obsession with junk bonds.

Prior to the financing instrument that Milken pioneered, the vast majority of U. S. companies had little access to U. S. financial markets. Wall Street largely ignored the forces of change and dynamism and worked to serve 800 fat-cat companies that coasted along on their "investment-grade" credit ratings. The broad majority of companies and entrepreneurs were left to fend for themselves. There are entire states that have no investment-grade companies incorporated within them.

Junk bonds played a major role in financing computer-industry expansion in the '80s. The destruction of the high-yield market has restricted access to and hiked the cost of capital for U. S. companies, which must compete with foreign outfits that are not handicapped by capital-gains taxes.

There are no ready sources of capital to fill the yawning gap. Bank capital, which formerly was the basis of depositor confidence, has lost that role to federally insured deposit insurance, and the industry norm declined from 15% of deposits in the 1930s to 5% today. As a result, in today's regulatory climate, banks generally lack the capital to expand lending. In addition, other regulatory initiatives such as Superfund and court rulings expanding liability for environmental-cleanup costs to lenders, together with falling real estate values, have forced banks into loan portfolios consisting of consumer and government debt. In such an environment, Fed easing can do little to boost the economy.

ILL-INFORMED. The manner of Milken's downfall has hurt the economy in an even more dangerous way. It has cast a chill over financial innovation that will be long-lasting, and the process by which Milken was brought down has greatly diminished the standing of the rule of law. Every businessperson now knows that the vagaries of the Racketeer-Influenced & Corrupt Organizations Act (RICO) can destroy any firm or person who makes a political enemy. The press cooperated in the destruction of Milken in exchange for four years of leaks designed to cripple Milken and force him into a plea bargain.

Many uninformed people believe that Milken is a highly unethical, greedy person who destroyed jobs with leveraged buyouts and destroyed savings and loan associations with junk bonds. Others, only slightly less ill-i formed, believe he drew his tough 10-year se tence for insider trading, bribery, and sto market manipulation. In truth, the prosecuti of Milken raises far more questions about t government's ethics than about Milken's.

Milken was not convicted on any charg brought by the government or with any e dence presented by prosecutors. The infamou 98-count RICO indictment never went to tri and a second, superseding indictment promis by the prosecutors never materialized. Instea Milken was bludgeoned into presenting a ca against himself. The weapons: RICO, leak threats to seek indictments against him in e ery state, threats against his brother, a strong-arm interrogation of his 92-year-o grandfather. Five of the six specific counts which he pled guilty aren't contained in t government's massive RICO indictment.

MASTER CRIMINAL? The government lacked case and the confidence to bring it to tri Instead, the prosecutors may have committ felonies by leaking grand jury information signed, in the words of Dean Henry G. Man of George Mason University law school, " persuade a large segment of the populati that the defendant is guilty of some heino crime before one iota of evidence has be presented in a court of law." Manne charg that "the SEC and the Justice Dept. have lo known the source of these leaks and ha condoned or even authorized many of them

By pursuing Milken in this way, the gover ment is guilty in the court of opinion. Leg scholars understand that due process and t rule of law were set aside to get Milken something—the prosecutors didn't care wh *The Wall Street Journal*'s L. Gordon Crov calls it "for-Milken-only punishment." Othe including large segments of the general pub and the political left, convinced by the gover ment's four-year campaign of leaks that M ken is the master criminal of our age, belie Milken escaped justice with a plea bargain a a light sentence.

This is especially paradoxical since the di conian sentence Milken received from Jud Kimba M. Wood has no basis in legal pre dent. Two of the charges to which he pl guilty have never before been criminally pr ecuted. The remaining four have been rega ed as so inconsequential that they have rar been prosecuted. As a final irony, the lack victims has so embarrassed the governm that the $400 million "restitution fund" forced Milken to establish looks like, wa like, and quacks like an incentive for plaint lawyers to find victims.

If this be justice, I want no part of it.

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BY GENE KORETZ

NOW, BUSINESS IS BORROWING JUST TO CUT BACK

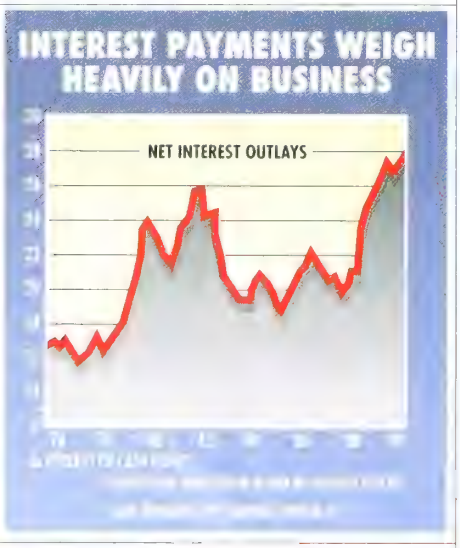
'Although business borrowing has slowed markedly this year, debt growth is being sustained by distress needs," reports economist Robert A. Schwartz of Merrill Lynch & Co. At the same time, it is weighing more heavily than ever on Corporate America.

Third-quarter data tell an ominous story. Net interest payments by nonfinancial corporations posted a seasonally adjusted annual rate of $128.9 billion, compared with $120.5 billion paid out in 1989. At the same time, cash flow (profits plus depreciation before net interest outlays) fell sharply. As a result, interest payments as a percent of cash flow hit a new postwar record of 28.1%.

In light of the heavy claims that interest is making on revenues, it's no surprise that companies are trying to slash costs and that defaults are rising. But Schwartz claims that the main factor inhibiting debt growth this year has been a near collapse of the original driving force behind the debt explosion of the 1980s: the conversion of equity into debt. After removing some $124 billion worth of stock from the market last year, net redemptions of equity by nonfinancial corporations fell to a $58.5 billion annual pace in the first half of this year. Other things being equal, that should have produced an even sharper slowdown in debt growth than actually occurred.

The reason it didn't happen, Schwartz explains, is that many companies are finding that they need to borrow not to finance expansion plans or meet higher working capital needs but to implement cost-cutting efforts. "Though closing plants and laying off workers can save money in the long run," he says, "such steps often involve heavy short-term costs, resulting in a cash drain that has to be offset by greater borrowing."

The irony, Schwartz notes, is that such distress borrowing is becoming more problematic in the current darkening business environment. "Companies that have to borrow to enable them to cut back are facing higher interest costs and more hesitant lenders at a time when their needs are most pressing."



THE NEW-CAR SALES NUMBERS ARE A MITE DECEPTIVE

In recent months, many auto market observers have questioned the reported strength of domestic car sales. For one thing, they have noted that such sales have benefited from a sharp, seemingly unsustainable rise in purchases by the major car rental companies.

Now, economist Charles Lieberman of Manufacturers Hanover Securities Corp. adds another twist to the saga that suggests that sales may drop even more sharply than many observers anticipate. One reason that fleet purchases have been so strong recently, he says, is that fleet operators commonly order more cars than they actually need (boosting reported car sales in the process).

In the past, they simply sold their excess new cars directly to the public. But this year the practice became so flagrant that incensed auto dealers brought it to a halt. Fleet operators now auction off their excess new cars to dealers.

"Either way," says Lieberman, "selling cars via fleets means that new-car sales have been front-loaded in the sense that many cars have been reported as sold before they were actually bought by the public. New cars that are really part of fleet inventories have been counted as sales."

SHRINKING INTEREST INCOME COULD CLOBBER THE SAVINGS RATE

Attempts by consumers to maintain their lifestyles in the face of economic adversity aren't the only reason savings are likely to stay depressed. Economist Richard Berner of Salomon Brothers Inc. predicts that the personal savings rate, currently running below 4%, will also be clobbered by lower interest rates and dividends as the recession unfolds. "Such income tends to b saved," he notes, "and lower interes income growth and dividend cuts in th wake of lower corporate profits promis to reduce the savings rate even more i the months ahead."

WHY CANADIAN DOLLARS BUY MORE HEALTH CARE THAN THE GREENBACK

Canada spends only 9% of its gros national product on health car while the U. S. spends nearly 12%. Ye the Canadian government-sponsore health care system provides all citizen with full coverage for medical expense while 15% of U. S. citizens have n health insurance and tens of million more have only partial coverage. In recent article in *The New England Jou nal of Medicine*, economists Victo Fuchs and James S. Hahn of Stanfor University tackle a key question raise by this comparison: Why do people i the U. S. spend 72% more for physician services per capita than their Canadia counterparts?

The answer is intriguing. The two r searchers found that higher per capit expenditures in the U. S. are explaine entirely by far higher fees. In fact, C nadian doctors actually provide signif cantly more services per capita tha U. S. doctors do—about 20% more surg cal and other procedures such as ane thesiology and radiology, for exampl and 39% more office visits. "The dat firmly reject the view that Canadian save money by delivering fewer se vices," write Fuchs and Hahn.

The study also looks at another pu zle. On average, U. S. fees for hospit visits and other procedures are mo than three times those in Canada, whi fees for office visits and consultation are about 60% higher. Yet U. S. doctor net incomes are only about a third hig er than Canadian doctors' net. What e plains the surprisingly small added i come enjoyed by U. S. doctors in light their much higher fees—or the relative high income enjoyed by Canadian do tors in light of their low fees?

The answer, say the two researcher is that U. S. surgeons and similar sp cialists have lighter work loads tha their Canadian counterparts, and U. doctors generally devote significant more of their gross incomes to overhea U. S. doctors must contend with mu higher billing, administrative, and liab ity insurance costs and often offer higher level of amenities—such as offi location, furnishings, and decor—to a tract well-insured patients.

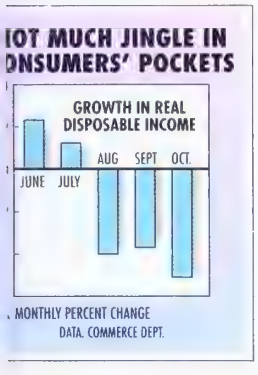
ECEMBER 17, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HAVE YOURSELF A SCARY LITTLE CHRISTMAS

The fourth-quarter data are painting a gloomy picture of the U.S. economy. Rising joblessness is casting a pall over the consumer sector. Construction is reeling from weak demand. And manufacturing ontinues to deteriorate. The numbers are falling so apidly and so broadly that they are starting to challenge the widely held notion that the recession will be hort and shallow.

Two factors in particular are adding to the severity of he downturn: The Mideast crisis and a credit crunch. emand throughout the economy was already slowing rior to the Aug. 2 invasion of Kuwait. Now, the nation's harply higher bill for imported oil—and the drain it reates on the economy's income—is beginning to drag own consumer and business demand even further.



The oil shock was a knockout blow for consumers, but their legs were already wobbly. Sharply slower job creation in the first half of 1990 had brought the growth of real disposable income to a standstill in the second quarter. This measure of earnings is adjusted for both inflation and taxes, and it is the best gauge of consumers' spending power. Now, costlier nergy has eroded purchasing power even further. Real come has fallen for three consecutive months (chart).

A credit crunch is also adding to the economy's woes. fter much debate among economists over whether a unch was real or imagined, the Federal Reserve Board as put the argument to rest. The Fed now believes that e growing unwillingness of banks to lend has "begun exert a contractionary influence on the economy." nd it's doing something about it.

THE FED'S EASING: TOO LITTLE, TOO LATE

On Dec. 4, the Fed announced that it had cut the reserve requirement for certain types of deposits, meaning that banks will have to set aside a smaller percentge of their total deposits (page 50). Despite Fed denials, e action is fundamentally an easing of monetary poli', because it will free $13.6 billion in bank funds that n now be lent to customers or used to shore up bank alance sheets. The move could also encourage banks to wer their prime lending rates.

Undoubtedly, further easing of credit conditions by e Fed is the safest bet in town, given the growing verity of the economy's problems. The Fed will be even more inclined to cut interest rates if Iraq's Dec. 4 agreement to talks with the U.S. produces a peaceful resolution of the gulf crisis. That would allow oil prices to fall and reduce the risk of inflation.

But while lower interest rates eventually will help mitigate the recession's ravages, the damage to the fourth quarter and to early 1991 has already been done.

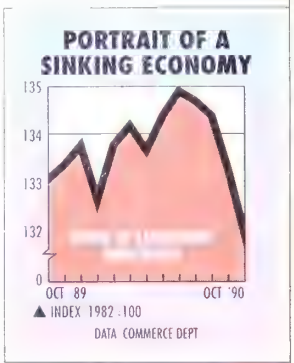
That's obvious from the government's indexes of leading and coincident indicators, which measure the economy's future and current paths, respectively. They are both in free-fall. The coincident index—a composite of employment, personal income, industrial production, and business sales—shows the economy's rapid pace of decline (chart). And the leading index, down a sharp 1.2% in October, shows no sign of a turnaround.

Unfortunately, the bad rap against the leading index, which has tended to spot recessions that never occurred, may have gotten worse. For this downturn, it provided little advance warning. The leading index is supposed to turn down before the coincident index does, but they both peaked in June. The BUSINESS WEEK leading index was more adroit at spotting the recession: It began to head south a year ago (page 4).

SHOPPERS ARE TOO BROKE TO BUY

Right now, the economy's weakness is concentrated in the consumer sector, which accounts for two-thirds of gross national product. Consumer spending in October was unchanged from September, but after adjustment for prices, real outlays fell a sharp 0.7%. That places a huge drag on economic growth in the fourth quarter. At an annual rate, October buying was down nearly 2% from the third-quarter average.

The consumer picture isn't likely to improve: Shoppers just don't have the resources. Real disposable income rose at an annual rate of only 0.3% in the second quarter. It fell at a 0.5% pace in the third quarter, and the fourth quarter started out down by a sharp 3.5%.



Households don't have a savings cushion either. They put aside only 3.8% of their disposable income in October, down from 4.1% in the third quarter and well below the second quarter's 5% rate. The consumers' huge burden of debt will also drag down spending as incomes weaken further.

It's little wonder, then, that consumers aren't eager to

commit themselves to purchases of big-ticket items. Indeed, sales of domestically made cars fell to an annual rate of 5.3 million in late November, the weakest showing in any 10-day period since the 1981-82 recession. Sales for the entire month fell to 6.3 million from 6.9 million in October. That drop virtually assures another decline in the November numbers on consumer spending.

In addition, sales of new single-family homes fell 3.5% in October, to an annual rate of 491,000, also the lowest level since the last recession. Buying is down 22.8% from last year. The West posted the largest decline, more than 36%. Residential construction was a big drain on economic growth in the last two quarters, and you can expect more of the same in the fourth quarter.

BUILDING ACTIVITY HAS COLLAPSED

Builders won't find much encouragement in the government's report on construction spending for October. A temporary surge in public-works expenditures, which tend to be volatile from month to month, fueled a 1.3% jump in construction outlays in the month, to $434.4 billion. Outlays for private-sector projects fell 0.9%, however, the sixth decline in the past seven months.

And there is more weakness to come. The value of building contracts, a leading indicator of construction spending, fell in October to the lowest level in four years, says the F. W. Dodge Div. of McGraw-Hill Inc.

New contracts peaked a year ago. They have now slid about 20%, and the spending numbers are only beginning to reflect the falloff. In general, existing construction projects are being completed faster than new buildings are being started. That's depressing outlays and jobs.

It's not surprising, then, that hiring plans in construction are the weakest of any sector, according to the latest survey of more than 15,000 companies by Manpower Inc., the temporary-employment agency. In fact, hiring plans of all U. S. companies for the first quarter of next year are the most downbeat since early 1983, when the economy was crawling out of the last recessio

The survey says that factory hiring next quarter w be below last year's level, though not as low as it was the last downturn. But judging by the November repo from the National Association of Purchasing Manag ment, that outlook may be too optimistic.

The Purchasing Managers' Index—a composite of o ders, production, employment, inventories, and delive times—fell for the fifth consecutive month in Novembe to 41.3%, the lowest since September, 1982. The ind has been below 50% since June, which signals that t manufacturing sector is in a recession. And it has be below the 44% mark for two consecutive months, whi means that the downturn in manufacturing is seve enough to drag down the rest of the economy as wel

The NAPM noted that new o ders were especially weak November, even though expo orders continued to rise. Clea ly, demand in the domestic eco omy is so weak that it is ove whelming the buoyant effec of strong foreign deman which accounts for only 20% U. S. industrial output.

But even in the face of sa ging sales, factories are kee ing their inventories on a short leash. Stock levels manufacturing rose only 0.1% in October, to $377.3 b lion, and the ratio of inventories to shipments fell to o of the lowest levels on record. The NAPM reported tha inventories stayed lean in November as well.

The benefits to the factory sector from better inve tory control and improved foreign trade are supposed keep this recession short and shallow. But the way th fourth quarter is shaping up, falling domestic deman could push down real gross national product by as muc as 3% to 4%. By any gauge, that's far from shallow.

THE WEEK AHEAD

RETAIL SALES

Thursday, Dec. 13, 8:30 a.m.

Retail sales were probably unchanged in November, after rising just 0.1% in October, according to the consensus of economists surveyed by MMS International, a unit of McGraw-Hill Inc. The dismal performance means that retail sales actually declined in both months after adjusting for price changes. The high cost of gasoline, the uncertainty of the gulf crisis, and recession are clearly causing consumers to postpone spending.

PRODUCER PRICE INDEX

Friday, Dec. 14, 8:30 a.m.

The MMS consensus expects that producer prices of finished goods edged up just 0.2% in November, after increases of more than 1% in each of the previous three months. Little movement in the cost of oil last month caused producer prices to be better behaved, but even so, prices in November would still be about 6.6% above their year-ago levels.

INDUSTRIAL PRODUCTION

Friday, Dec. 14, 9:15 a.m.

Output at the nation's factories, mines, and utilities likely fell by about 0.5% in November, on top of a 0.8% slip in October. That's indicated by drops in employment and the factory workweek last month, as well as the decline in the production index compiled by the National Association of Purchasing Management. Cuts in auto production likely led to the drop, but other industries also reduce output because of slack demand.

CAPACITY UTILIZATION

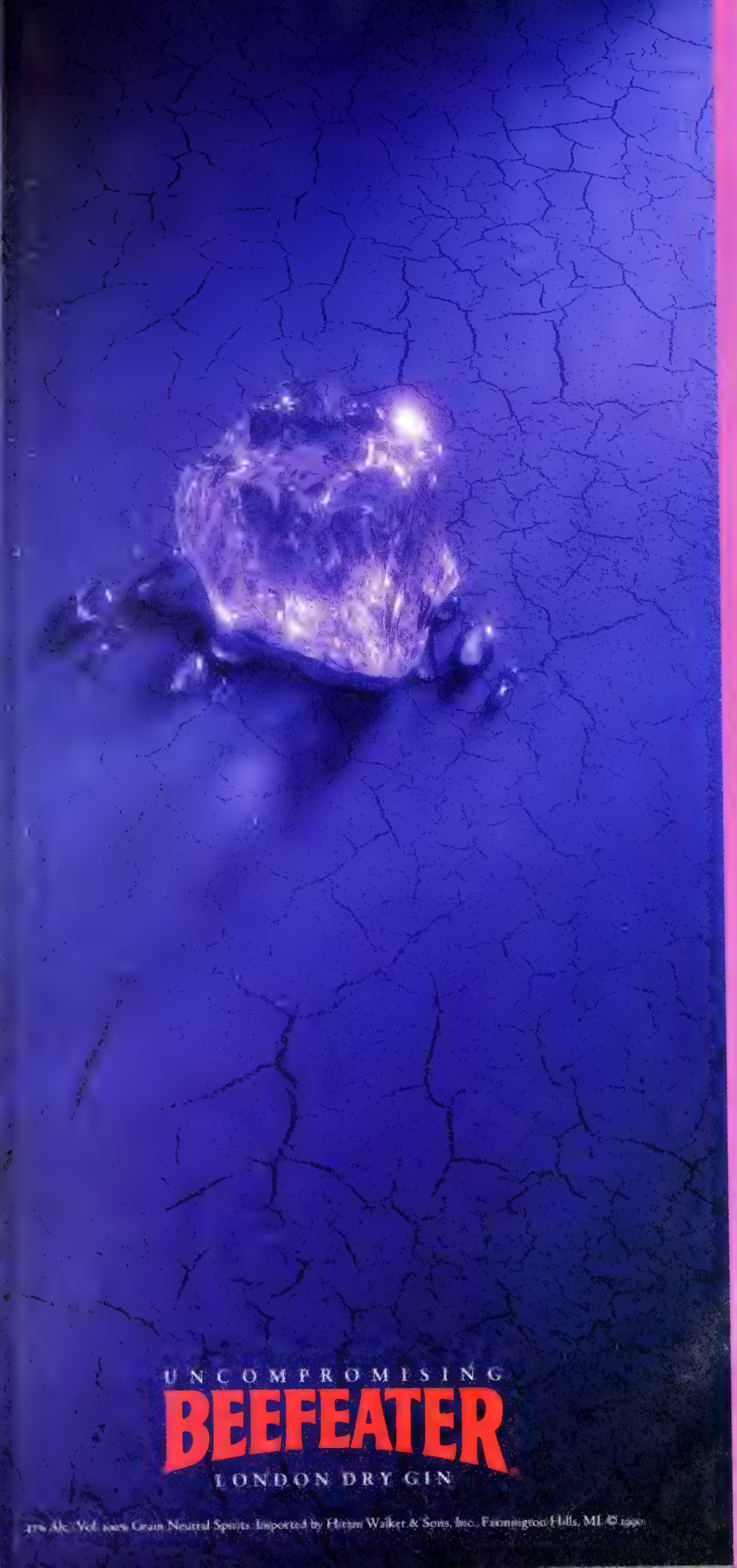
Friday, Dec. 14, 9:15 a.m.

The expected decline in industrial outpu suggests that utilization rates droppe to 82.1% in November, according to th MMS consensus. In October, operatin rates stood at 82.6%.

BUSINESS INVENTORIES

Friday, Dec. 14, 10 a.m.

Inventories held by manufacturers wholesalers, and retailers probably grev by about 0.2% in October. That's sug gested by the already reported 0.1% gai in factory inventories. In September business inventories rose by 0.6%.



UNCOMPROMISING

BEEFEATER

LONDON DRY GIN

47% Alc./Vol. 100% Grain Neutral Spirits. Imported by Hiram Walker & Sons, Inc., Farmington Hills, MI. © 1999

SINCE 1820,

WE'VE NEVER ONCE

CHANGED THE

RECIPE FOR OUR

WORLD FAMOUS GIN.

OF COURSE,

IF THERE'S ANYTHING

YOU'D LIKE TO ADD,

FEEL FREE.

DEALS

DECEMBER 17, 1990

AT&T BARES ITS TEETH

IT SAYS IT WILL MAKE A HOSTILE BID FOR BALKY NCR

Whatever happened to that nice Cliff Robertson? You know, the man who kept telling us that picking AT&T was "the right choice"? AT&T lowered the profile of its soothing spokesman earlier this year as part of a radical change in strategy and attitude that it refers to blandly as a "redirection." The term hardly does justice to the reality. The new American Telephone & Telegraph Co., aggressive and opportunistic, is scoring victories in long distance and even financial services, all the while gaining concessions from regulators. Plenty of companies talk about changing the corporate culture, but AT&T seems to have succeeded.

But the formerly discreet AT&T is beginning to discover, across a range of businesses, that in-your-face aggressiveness can backfire. That became abundantly clear on Sunday afternoon, Dec. 2, when AT&T went public with its $90-a-share, $6.1 billion bid for NCR Corp., the Dayton-based maker of computers, cash registers, and automatic teller machines. Clearly, AT&T hoped that splashing the offer across the Monday morning newspapers would force NCR to the bargaining table and lead to a quick, amicable deal.

LONG MEMORIES. Not quite. The gambit antagonized NCR's top management. On Dec. 5, cigar-smoking Chairman Charles E. Exley Jr. let AT&T know that he wouldn't even consider a deal until the phone giant bumped its bid to $125 a share, or $8.4 billion. AT&T rejected that out of hand and said it would go ahead with a hostile tender offer at its original price. The exchange of fire came after Exley and AT&T Chairman Robert E. Allen met alone for 45 minutes in New York. "Maybe if we'd had a cigar," sighed Allen, "we'd have found some common ground."

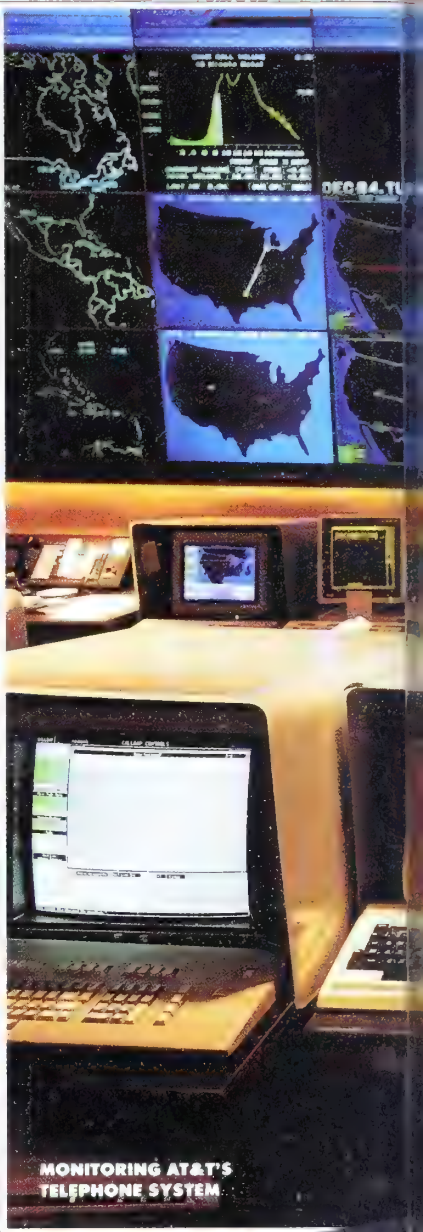
Exley had let it be known from the start that he hated the idea of having his company bail out what he called the "failed strategy" of AT&T's perennially money-losing computer business. Even if AT&T does win NCR, Exley's denigrating words won't be soon forgotten by employees of either company.

Indeed, if AT&T captures NCR, it could drive out some of the seasoned NCR executives that it needs to make a go of the combination. Exley himself has vowed to quit if the bid succeeds (page 26). Nevertheless, AT&T shows no sign of backing off. Robert M. Kavner, who heads AT&T's Data Systems Group, believes that Exley can be dissuaded: "It is very premature to suggest that anyone is leaving."

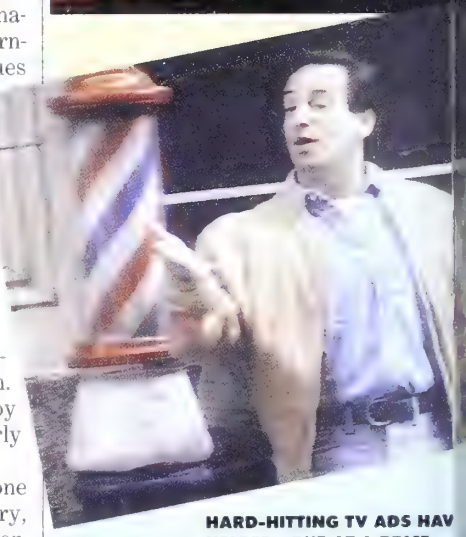
In some ways, AT&T's top brass can be forgiven for thinking that a hard-line approach would work, because its new style has produced some good results in the past year or so (table). Hard-hitting television commercials and sales pitches by telephone have drastically slowed the erosion of its share in the long-distance market, now hovering around 67%. Its audacious entry into the credit-card business, in competition with the banks that are some of its biggest phone customers, has been spectacularly successful. Since unveiling the Universal Card last March, AT&T has attracted more than 4 million accounts, making it No. 5 in the business. This year, in spite of the drain from starting up the credit card, analysts expect record profits, with earnings up 2%, to $2.75 billion, and revenues rising 2%, to $36.7 billion.

In less-noticed ways, too, AT&T is on the march. International sales are growing rapidly. Its full-court press for deregulation in Washington has notched some victories, including permission to offer so-called Tariff 12 deals—customized discount packages of phone services that have won back such major accounts as Aetna Life & Casualty, Metropolitan Life Insurance, and Chevron. And AT&T continues to reduce costs by closing plants and cutting jobs—nearly 15,000 this year alone.

The new AT&T harks back to the phone giant's early days. Early in the century, under the control of financier J. P. Morgan, AT&T scarfed up independent local



MONITORING AT&T'S TELEPHONE SYSTEM



HARD-HITTING TV ADS HAV HELPED—BUT AT A PRICE

T'S V LOOK: N TOUGH OO IGH?

- Pursuing $6.1 billion takeover of computer maker NCR. If deal is done on unfriendly basis, top NCR executives could bolt
- Fighting for long-distance customers with tough "Put It In Writing" television commercials and millions of telephone sales calls. If too successful in taking business from smaller rivals, AT&T could face reregulation
- Launching Universal credit card, which became the nation's fifth-largest in just eight months. That success has angered banks that are big AT&T phone customers
- Gaining wide pricing latitude from federal regulators. Courts worry that AT&T could go too far
- Cutting costs through job cuts, plant closings, and a bid to place nonunion crews on vessels that lay undersea cables. Hurts employee morale and public image

DATA BW

phone companies and even briefly controlled rival Western Union. That era was brought to an end by a 1913 agreement in which AT&T agreed to stop buying local phone companies without government permission and divested itself of Western Union. In effect, AT&T escaped antitrust prosecution by submitting itself to government supervision. AT&T learned to cultivate the benevolent image of Ma Bell. Some of that aura continued to surround AT&T even after divestiture. Now, it's pretty much gone.

Hastening AT&T toward its goals is a reorganization last year that split the phone giant along lines of business—currently, 18. Each one is supposed to act as a separate company, with responsibility for its own strategies and bottom line. That vastly speeds up decision-making. Says Victor Pelson, group executive for communications services: "What we have done is eliminate debates."

Unfortunately for AT&T, NCR is not the only entity that prefers the mellower style of old. Pelson says AT&T had hoped that banks wouldn't retaliate against its Universal Card. Yet that is exactly what some are doing. Big banks are arranging to have their Visas and MasterCards double as calling cards for MCI Communications Corp. and U. S. Sprint Communications Co.

NEW BATTLEGROUND. Aggressiveness is a mixed benefit in the long-distance biz, too. AT&T's attack ads, which show frustrated long-distance callers complaining about rival carriers, have helped slow its market-share erosion. It's expected to fall no more than a percentage point or two this year and next, down from three or four points each year previously, going back to the 1984 breakup. AT&T has managed to shift the battle away from price—a major victory, since an across-the-board cut of one penny from its per-minute charges would cost the company $1 billion in annual revenues.

But the ads threaten to undermine the warm image of the "right choice" company nurtured by Cliff Robertson. The "Put It In Writing" ads—narrated anonymously, oddly enough, by Robertson—insinuate that rivals are making false claims. MCI and Sprint have responded in kind. It's all a bit off-putting to Edward Bodigheimer, a retired Manhattan painting contractor: "Everybody's shouting and screaming on the TV, on the radio. It's really discouraging." Pelson says he's proud of the recent campaigns but has just completed new guidelines for marketing staff and outside advertising agencies to make sure that AT&T conveys a positive image. He admits: "I'm sensitive to people's concerns about negative communications."

Nonetheless, employees are picking up

negative signals, too. AT&T's job-cutting is provoking ill will among organized labor. The latest affront to the unions came just this month, when AT&T confirmed that it is seeking to register its cable-laying ships in other countries so it can hire nonunion crews at a tenth of the union wage. "At the altar of competition, they're saying the hell with everything," charges James E. Irvine, communications and technology vice-president at the Communication Workers of America, AT&T's biggest union. On Dec. 4, fearing job losses from a merger, the union offered to help NCR fend off AT&T—a hollow but telling gesture.

Could AT&T's new toughness hurt it in Washington? In some ways, yes. The legality of the company's Tariff 12 discounts has been questioned by a federal appeals court in Washington, which has sent the matter back to the Federal Communications Commission for further study. But AT&T is still a long way from being the monopolist of old. And for all its bravado, the company refuses to say that it wants to regain market share in long distance—something that could bring down the wrath of the regulators, courts, and Capitol Hill.

For now, FCC Chairman Alfred C. Sikes says he finds nothing too alarming in AT&T's new style: "I think that s people are discomforted by what see . . . but this is the type of AT&T was envisioned in the breakup."

On the whole, AT&T is making g strides by getting tough. Says A "As long as aggressiveness is define serving customers and winning cus ers, I'm not going to be concerned." NCR has a different definition. It AT&T's bid "destructive." If too m machismo gets AT&T into a mess, company may want to give Cliff Ro son a little more visibility.

By Peter Coy in New York, with L Lewyn in Washington and bureau rep

IF AT&T WALKS IN, WILL NCR'S TALENT WALK OUT?

With one $6.1 billion bid, American Telephone & Telegraph Co. has fired a warning shot across the bows of two computer companies. Sure, AT&T's overture, which it transformed into a $90-a-share hostile tender offer, has galvanized NCR Corp. But it has also alerted IBM to a potentially serious challenge. For on paper, anyway, AT&T-NCR would seem to have what it takes to pick up a big chunk of IBM's worldwide mainframe business.

But that's only if AT&T can avoid the problems that have undermined virtually every big computer industry merger of the past 25 years: culture clash followed by an exodus of vital talent. There actually seems to be a snugger fit than usual between the product lines and strategies of AT&T and NCR. Both companies sell networks of computers adhering to "open" industry standards, such as AT&T's popular Unix software. The challenge, as always, would be merging two cultures while still tending to a marketplace that demands constant attention. It's too easy, says NCR chief Charles E. Exley Jr., "to suddenly find yourself behind the parade."

BUSTED FENCES. For NCR, AT&T, and IBM, the name of that parade is transaction processing—handling thousands of data exchanges per second for merchants and financial services companies. Now worth $23 billion, that market is growing at 20% or more a year, and it's the target of every supplier of commercial computers. And while IBM mainframes process most business transactions today, customers are paying more attention to the related communications networks and specialized terminals. Hence AT&T's interest in NCR, which is a leading terminal supplier throughout the world.

But even if it wins NCR without a protracted fight, AT&T will have miles of fences to mend. AT&T made its first public offer for NCR just after the computer company finished launching a bold new strategy and product line. After several years of flat growth, NCR is stepping forward as the first old-line mainframe company to commit itself totally to networks of cheap, flexible, microprocessor-based computers.

AT&T COVETS NCR'S NO. 1 POSITION IN SPECIALIZED TERMINALS

That adventurous course has turned many heads in the marketplace and invigorated employees, who question the merits of a takeover. Says one NCR computer engineer: "We feel we h good momentum, and we're headed the right direction. AT&T has bet benefits than NCR, but it also bri along six times the bureaucracy. Th just what we don't need."

The chief skeptic is Exley. He's dry-humored financial whiz who comfortably discuss most technical tails of NCR's new products and str gy. NCR insiders consider him vital its success. But AT&T mi not get the benefit of skills: He has vowed to qui AT&T wins.

Another big risk is t AT&T may try to transfo NCR overnight into anot IBM, selling all sizes of co puter to all markets. "T spells potential disaster," s Myron F. Kerstetter, vi president at Gartner Gro Inc., a Stamford (Conn.) c sultant. Instead, "AT&T m show patience and not int fere." NCR's success h stemmed largely from its c centration on selected secto especially retailing, banki and manufacturing.

If a deal does happen, two companies would lik have trouble consolidat their sales forces. AT&T's used to selling services. NCR's mai sells products. "Those are complet different mind-sets," says Jim Ha son, an analyst at Meta Group Inc Westport (Conn.) consultant.

Minds may yet meet between A and NCR, perhaps first over an acqu tion price and then over organiz their combined resources. If so, I had better be ready for a fight.

By John W. Verity in New Y

'S TOO SOON TO WRITE ACY'S OBITUARY

a Yuletide disaster could kill plans for a cash infusion

You deserve to know these FACTS!"

That proclamation topped off a tling full-page ad placed in *Women's r Daily* on Dec. 4. The ad's author no less than Edward S. Finkelstein, rman of R. H. Macy & Co. His pur- to kill once and for all the frighten- rumors of bankruptcy that have been ging Macy's for months. The ad ticked points about the financial muscle of y's leveraged buyout and claimed that Christmas "will not make or break y's."

eventh Avenue desperately wants to eve Ed Finkelstein, since most of the s coming from Macy's 34th Street lquarters in Manhattan has been dis- . It's true that the company has had e potentially good news of late. Big- ie inside investors, including star mon- nanager Michael F. Price of the Mutual es Fund, Laurence A. Tisch, A. Alfred bman, and General Electric Capital p., have promised to pay as much as) million for a new equity offering, ch Finkelstein's ad vows will be com- ed by the end of the year. GECC has agreed to purchase Macy's credit- l division for some $100 million. t deal, which is scheduled to se before February, would nsfer the credit-card division's billion in debt to GECC.

RISTMAS CHAOS. But until , these pledges have not ma- alized into cold cash, which hat Macy's has been losing ity of. As a result of a disas- is Christmas last year, the re- er reported a $215 million loss the year ended in July. And any now, Macy's will report a $66 lion loss for the quarter ended in ober, worse than analysts origi- y expected (table).

t's no wonder, then, that in this iday shopping season, which ld be the worst in 10 years, ie vendors and bondholders are rrying that Macy's will wind up rking its merchandise down so ch that its crucial Christmas fits will plunge once again. Says hard Hastings, a credit analyst vendors at Solo Credit Service rp. in New York: "In spite of at they're saying, Macy's is into motional selling, which is de- oying their margins." A Yule-tide disaster for the company could conceivably kill the plans for those cash infusions—a setback that would trigger a panic among suppliers. "If the investors say they won't throw good money after bad, the whole thing would unravel," says Evan I. Mann, a junk-bond analyst at Dillon Read & Co.

That's the scariest scenario in retailing today—a horrifying replay of last January's bankruptcy of Campeau Corp.'s Federated Department Stores and Allied Stores. But writing Macy's obituary still seems premature. For one thing, inside investors say they're sticking to their pledge to invest in new stock, perhaps as soon as the end of the month. Says Price: "We are committed to buy stock, and that has not changed."

It's also impossible to tell whether Macy's is letting its discounts get out of hand: No analyst or vendor has quantified how many bargains are available at Macy's, or at any other retailer for that matter. Macy's concedes it is running lots of promotions this season, but the company insists the discounting is less widespread than it was in 1989. In a Nov. 21 letter to suppliers, Macy's Senior Vice-President Diane P. Baker said the company's holiday inventories were down by $650 million from last year, and gross margins—a crucial measure of profitability—were actually up a bit. Finkelstein emphasized these points in his full-page ad. Company executives declined to be interviewed for this story.

TOUGH SLOGGING. So far, many vendors and analysts are inclined to give Finkelstein the benefit of the doubt. Says Jerome A. Chazen, chairman of Liz Claiborne Inc.: "We're shipping. They're paying their bills on time." And one bullish bond analyst, Michael Cha of J. P. Morgan Securities, thinks Macy's Christmas quarter will be somewhat better than last year's. But he points out that for the quarter, his projected cash interest coverage ratio—cash flow divided by cash interest expense—of 1.6 is way below an average retailer's Christmas season norm of 2.5.

That weakness underscores the true long-term problem for Macy's. As Finkelstein himself noted in an October interview, the slow economy is translating into tough slogging for retailers. In this environment, Macy's probably will not be able to count on dramatically improving its operating results for a year or more.

What Macy's could do—assuming it raises as much as $250 million by February—is buy back a chunk of its 14.5% junk bonds and pay down $100 million of its bank debt. Once GECC takes on the credit-card debt, Macy's will be freed of approximately $1.9 billion in obligations, and its $600 million annual cash interest bill will drop by about $200 million.

Trouble is, that still leaves the retailer with about $4 billion in long-term debt and plenty of interest costs. Equally important is that Macy's needs ample cash for capital expenditures, mostly to refurbish its stores and keep them competitive. That would come to an additional $140 million to $160 million annually, predicts Frederick H. Taylor, a high-yield bond analyst for Salomon Brothers Inc. Add it all up, says Taylor, and "long-term, Macy's will need another $150 million in equity by 1993." That's just when the interest on a big zero-coupon issue starts to come due.

Where that additional cash might come from and whether it would be sufficient are unanswered questions. In the meantime, both Seventh Avenue and Wall Street await the next announcement from Ed Finkelstein.

By Laura Zinn, with Christopher Power in New York

IS MACY'S UNRAVELING?

REAL AND PROJECTED LIQUIDITY AT R.H. MACY

IN JULY, MACY'S RESULTS DISMAYED BONDHOLDERS...

Year ended:	7/29/89	7/28/90
CASH FLOW* (millions)	$922.8	$719.3
CASH INTEREST COVERAGE RATIO	1.6	1.2

...AND IN THE OCTOBER QUARTER THINGS REALLY TURNED WORSE...

Quarter ended:	10/28/89	10/28/90**
CASH FLOW* (millions)	$206.4	$161-$177
CASH INTEREST COVERAGE RATIO	1.4	1.1-1.3

...WHILE CHRISTMAS WON'T HELP MATTERS MUCH

Quarter ended:	1/27/90	1/27/91**
CASH FLOW*† (millions)	$210.0	$238
CASH INTEREST COVERAGE RATIO	1.4	1.6

*Cash flow is earnings before interest, taxes, depreciation, and amortization **Estimate †Not including $250 million cash infusion

DATA: COMPANY REPORTS, J.P. MORGAN SECURITIES INC.

BANKRUPTCIES

THE LORENZO LEGACY HAUNTS CONTINENTAL

It enters a new bankruptcy reeling from chronic debt and image troubles

Blame it on fuel prices. Blame it on the recession. But in the end, Continental Airlines Holdings Inc. never had a chance in the battered airline industry. The nation's fifth-largest airline company tumbled into bankruptcy on Dec. 3 for one simple reason: The bad boy of deregulation had loaded it with too much debt and an unseemly reputation. Frank Lorenzo may be gone, but his ghost lingers on.

For Continental's creditors, the events are eerily familiar—it's the carrier's second bankruptcy in less than a decade. Many of them are watching their claims wither away in Lorenzo's Eastern Air Lines Inc. bankruptcy as well. But a new Continental management led by former Delta Air Lines President Hollis L. Harris is intent on making this Chapter 11 different. "Continental will conduct business as usual," insisted Harris in Wilmington, Del., where Continental filed its petition. No strikes. No stranded passengers. No ugly publicity.

If only it were that simple. Continental is starved for cash, and the capital markets are loath to feed it. Sure, under Chapter 11 the airline will get some relief from its backbreaking interest expenses. But fuel costs remain dangerously high, and recession clouds are keeping passengers at home. No judge can help with that.

CHANGE OF VENUE? The legacy of former sibling Eastern is also a major drain. Eastern creditors are laying claim to more than $400 million in disputed asset transfers between the two companies. And the federal Pension Benefit Guaranty Corp. (PBGC) wants $680 million to cover Eastern's unfunded pension liabilities. Now, Eastern creditors are mulling a motion to move the Continental case to New York so bankruptcy Judge Burton R. Lifland (page 29) can preside over both matters. The reason: Lifland agrees that Continental is liable in the asset transfers, so he'd likely give the issue more weight than the Delaware court would.

Continental's board thought better of filing in October, hoping to avoid just such legal tangles. Instead, it tried to sell assets. It put the profitable trans-Pacific routes on the block and explored sale-leaseback deals for aircraft and a big maintenance facility in Los Angeles. Harris even tried to squeeze loans out of Boeing, Airbus Industrie, and Continental's engine makers. With cash running low, the last straw came when Delta scuttled a deal for the Pacific routes.

Now, Harris is looking for another way out from under Lorenzo's load of debt without gutting the company or scaring off passengers. He raised $150 million by selling Continental's Seattle-to-Tokyo route to American Airlines Inc.—getting a $140 million loan up front. That, plus the $138 million on hand, gives him nearly $300 million to work with. Chapter 11 should freeze more than $400 million in debt payments due next year. And analysts think that the carrier's food-service unit could fetch at least $50 million.

To avoid selling off more, Harris must weather a contracting economy and ward off bad publicity. Continental is the lowest-cost operator among major U.S. airlines. And until this fall, its earnings were slowly improving, despite subpar yields (charts). But given its poor image—another Lorenzo legacy—it already had big troubles wooing high-fare business passengers. This year, over traffic has barely improved. Har hopes the filing will buy time to sh up Continental's service.

But when it comes to public co dence, Harris is walking through a m field. To get in and out of Chapter quickly, he must first persuade lend to restructure Continental's debt—po bly through a swap for equity in airline. That will be a tough sale, si Scandinavian Airlines System, with 16.1% stake in Continental, is planning write down its $106 million investmen the company to almost nothing. T there are Eastern's creditors and PBGC, which between them have $1 lion in unsecured claims.

SAVING FACE. Harris' plan to build a f service, full-fare airline could also buffeted if, as many predict, a p Christmas lull prompts a fare war. Chapter 11, "you chop fares for mar share and to increase cash flow," no Robert W. Baker, American's execut vice-president for operations. Contin tal would have to join the fray.

Still, in contrast to Continental's f trip to bankruptcy court, Harris has the best face on this Chapter 11 fil "There's a new level of confidence this management group," says J. C Matthews, an Ameritrust Texas se vice-president and trustee for $141 lion in unsecured Continental bonds. timately, though, Harris must convi the disinterested business traveler t Continental has left behind the Lore days of chaos-as-usual.

By Mark Ivey in Houston and Mic Oneal in New York, with bureau repo

Commentary/by Michele Galen

IT MAY BE TIME TO PULL THE PLUG ON EASTERN

Before he went on the bench 10 years ago, Burton R. Lifland was just another bankruptcy yyer. An associate at the now- unct firm of Finley, Kumble, Wag- , Heine, Underberg, Manley & Ca- , he was passed over for partner- p, says a former colleague. He alls Lifland was a "roll-up-the- eves, unbutton-the-collar kind of ." Then, Lifland got a call appoint- him to the Bankruptcy Court for Southern District of New York. ddenly, he assumed an al- st regal quality," quips the league. "It was like he got a ge pill."

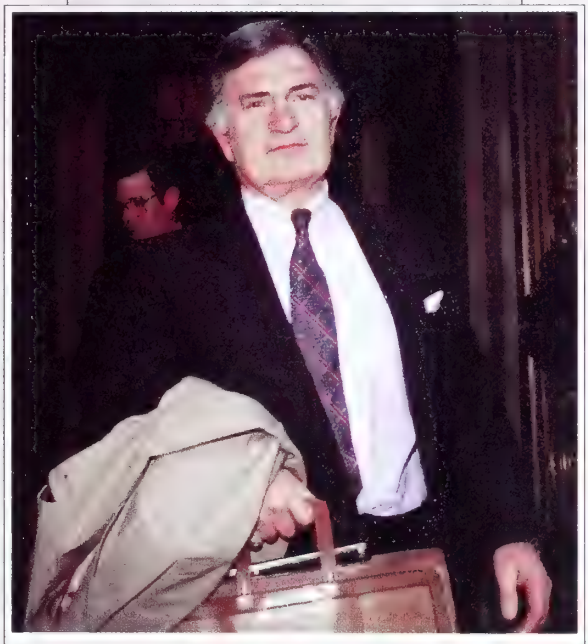
n short order, Lifland made a ne for himself as the judge in high-profile bankruptcies of nville Corp. and LTV Corp. w, as he presides over the kruptcy of Eastern Air Lines ., Judge Lifland seems to be rdosing on judicial activism. er since the sick carrier filed Chapter 11 in March, 1989, land has paid little heed to the hts of those to whom Eastern es money. Instead, he has ag- essively backed Eastern's nagement in his efforts to ep planes in the air and em- yees on the job. And he may e a repeat performance, if the c. 3 bankruptcy filing of Con- ental Airlines Inc. gets moved New York (page 28).

The latest setback for Eastern ditors came on Nov. 27, when Lif- d gave the airline up to $135 million escrow funds to keep it aloft ough early 1991. The payout effec- ely depletes the unencumbered ds acquired through asset sales.

CONTROL.' It could be that Lifland ows more about this case than has en made public. And if by some long t he saved Eastern, he would be a o. The airline's 18,000 employees uld keep working, and the business uld provide a stream of income that ditors—who are owed over $1 bil- —could tap. He would then have de good on his early vow to keep stern in the air and thus serve the ying public's interest."

The trouble is, this course has done le to right what's wrong with East- 's operations—while severely dam- ng the creditors. "I have totally lost th in the bankruptcy law," says a major creditor. "There's no control."

At this point, Lifland might be wiser to take Eastern off artificial respiration and let it die. By trying to save it, Lifland interferes too deeply with the marketplace. "There's no policy in the bankruptcy code to keep a firm alive that can't make it competitively," says Douglas G. Baird, a bankruptcy law professor at the University of Chicago. Adds a former bankruptcy judge who sat with Lifland in the Manhattan District: "You can't pull off a reorganization by riding the backs of creditors."



JUDGE LIFLAND HAS VOWED TO KEEP THE AIRLINE ALOFT

That's the nub of the problem: Lifland is gambling with creditors' dough. The court-appointed trustee who is managing the airline, Martin R. Shugrue, has no money at stake and, of course, neither does Lifland. Yet they are pulling the levers. Moreover, since the equity was wiped out long ago, the creditors are the real owners. They have made their wishes plain: Rather than place an all-or-nothing $135 million bet that Eastern can make it through the winter, they want to liquidate the airline and cut their losses.

> By pouring a further $135 million into operations, Lifland is gambling with creditors' dough

Lifland has the power to do just that. Under the code, he can convert Eastern's Chapter 11 reorganization to a Chapter 7 liquidation if the asset sale is in the "best interest of the creditors and the estate." That legal test is met if, say, there are continuing losses or the debtor is reasonably unlikely to survive, notes Mark J. Roe, a bankruptcy law professor at Columbia University. Eastern, a weakling in the industry, fits the bill. Since collapsing into bankruptcy, it has lost $1.6 billion. In 1988, it lost $209 million on operations. It last made an operating profit in 1987. Yet Lifland has suggested creditors needn't ask for liquidation. Hell or high water, he wants those planes up through the holidays.

UNFAIR SUBSIDY. Some interpret the judge's pro-management bent by likening the airline industry to the railroads, which enjoy special protections in bankruptcy to protect the public. But, experts note, the bankruptcy code does airlines no such favors. And Lifland's claim that Eastern's survival promotes competition doesn't fly either. By subsidizing a carrier not economically sound, he harms healthy rivals such as Delta Air Lines Inc. The Atlanta-based carrier recently had to match many of Eastern's fares and spend plenty on a promotional blitz. And after Lifland's latest cash infusion, Delta canceled plans to buy Continental's Pacific routes, a factor contributing to Continental's bankruptcy filing. While Delta denies any link between Eastern and nixing the Continental deal, the timing suggests otherwise.

And then there's this: Lifland's support of Eastern could scare away future lenders in the airline business—or elsewhere. If Eastern creditors can't get their cash out, they'll be less eager to lend to others. And banks could further hike interest rates to compensate for the extra risk in lending to troubled companies—or decide not to bother.

All this seems like more than enough to recommend a mercy killing. Lifland should retreat from his pro-management activism and listen to Eastern's creditors. Instead of squandering more of their money, he should move quickly to end everyone's agony.

AUTOS

FIXING A FORD EXPLORER: PARTS MAKERS MAY RESPOND WITH THEIR OWN PRICE CUTS

BODY-PART HEAT: FORD VS. THE INDEPENDENTS

It's waging a price war on makers of cheaper replacement parts

'Tis the season of good cheer in auto body shops: Snow-slick roads mean lots of mashed fenders. But there's little revelry at the auto makers that supply most of the replacement body parts. They're too busy looking over their shoulders at independent parts producers. Backed by the insurance industry, the knockoff makers have eaten steadily into the lucrative crash-parts business in recent years.

Now, Ford Motor Co. is hitting back—hard. On Dec. 1, the company matched the competition, slashing the price of key replacement parts an average of 11% (table). That's a dramatic departure from the past, when Ford argued that the higher quality of its parts made them worth more. "We've decided to meet them on the battleground they have chosen: pricing," says Kenneth W. Myers, marketing manager for Ford's parts and service division.

LOST MONOPOLY. Ford's salvo could spark a brutal price war: Independent parts companies are likely to shave their prices in response. "We'll have to make some adjustment," says Charles J. Hogarty, president of Keystone Automotive Industry Inc., the largest U. S. distributor of knockoffs. And the insurance industry, intent on containing costs, is pressuring body shops—even those run by Ford dealers—to use cheaper parts.

There's a lot at stake for the auto maker. Ford, Lincoln, and Mercury cars are involved in some 4 million traffic accidents every year in the U. S. It takes about $2 billion worth of replacement sheet metal to repair them. As recently as 1982, Ford and other carmakers enjoyed a virtual monopoly on crash parts—a welcome relief from the crowded market for mechanical parts. Although exact figures aren't available, insurers are fond of pointing out that assembling a car from replacement parts would cost you three to four times what you'd pay for a factory-built car. But those once-fat profit margins are thinning now that independent companies, most of them located in Taiwan, have taken about 10% of the market.

The indies saw their opening when insurers started getting tough. After a car crash, insurance adjusters at companies such as State Farm Mutual Automobile Insurance Co. and Allstate Insurance Co. search computer data bases to find the least expensive parts. They designate them on claim forms by part number and price. If car owners insist on more expensive original equipment parts, they pay the difference.

As a result, the cost of some parts has fallen sharply. A front grille for a Ford Escort, for example, is down 35% since 1983, to $39. Meanwhile, the cost of parts that don't have independent competition has continued to rise. A Ford-produced trunk lid for the same Escort costs $270, vs. $207 in 1983. State Farm figures lower prices saved the insurance industry $388 million in 1989. Carmakers "would love to have their money back," says Edward L. Schrenk, senior vice-president for claims at USAA, a San Antonio insurer. "But that's a genie out of the bottle that isn't going back."

'RED ROTTING HOOD.' Ford isn't fighting back on price alone. It says knockoff parts suffer from poor quality, despite an insurance industry testing and certification program. The company recently tested 21 parts approved by the industry-backed Certified Automotive Parts Assn. Ford said the parts often didn't fit properly and took an average of 1.5 hours longer to install than original equipment parts. The company is also spending more to carry its message to consumers. Ads warning drivers to beware of "Little Red Rotting Hood" are popping up in national magazines, including *Newsweek* and *People*. They go on to call the CAPA certification program a "spoof."

The campaign isn't likely to cause consumer backlash. Independent observers such as Consumers Union, publisher of *Consumer Reports*, endorse the lower-cost parts, as long as they've been certified. Mark Silbergeld, director of CU's Washington office, points out that Ford's own parts sometimes have quality problems.

Right now, neither General Motors Corp. nor Chrysler Corp. plans to match Ford's drastic price cuts, even though they face similar competition. GM, however, will continue its long-running television, radio, and magazine ads trumpeting the higher quality of its original equipment parts.

The real winner in this struggle will be consumers—particularly those who have to pay high insurance deductibles or have limited coverage. The great number of inexpensive crash parts now available for popular models that have been around a few years. And their customers are more likely to have trouble affording repairs when a snowy smash-up lands them in the local bump shop.

By David Woodruff in Detroit

REPLACEMENT PARTS ARE GETTING CHEAPER

Cost of a fender for a 1981 Ford Escort

	1983	1990
FROM FORD	$82	$57
FROM COMPETING PRODUCER	70	57

DATA: STATE FARM INSURANCE CO

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TELEVISION

FIRES, SCHOOL BOARD MEETINGS, AND ACCIDENTS—24 HOURS A DAY

Local all-news cable TV is springing up around the country

MINI-CNNs FOR THE '90s? THE ORANGE COUNTY NEWSCHANNEL CREW ON ASSIGNMENT

Like Cable News Network, the Orange County NewsChannel keeps its viewers up to date with 24 hours of programming every day. But the Southern California station also has a few features CNN never dreamed of. Dr. Drive, an irreverent traffic reporter, points out "snafuskis" on local freeways. And Charlie Fox, a Hawaiian-shirted surfer dude, keeps an eye on the day's riptides and "pumping waves."

Don't laugh. Dr. Drive and Charlie Fox may be harbingers of cable programming around the country. Taking a cue from cable pioneer Ted Turner, more and more media companies are about to launch their own versions of CNN. The Long Island suburbs already have one, and more are on the way (table). "Just as the 1980s were the decade of national cable networks, the 1990s will be the decade of local cable news networks," predicts John Coleman, chief executive of Chicago Cable Network, a joint venture of Fox Broadcasting Co.'s WFLD and Tele-Communications Inc.

PLUNGING AHEAD. What's driving all the activity? Local news is cheap to produce. Owners of the new ventures hope that low advertising rates will bring in enough to cover costs and provide a small profit. "We've set up our economics with a modest payback," says Philip S. Balboni, director of Boston's New England Cable Newschannel.

Even reaching that goal may be tough, though. Cablevision Systems Corp., which owns News 12 on Long Island, doesn't expect to turn a profit on its $10 million investment until 1991, the fifth year of operation. Many advertisers may be wary until they're sure people are watching. "Potentially, it's a very attractive environment," says Gene De Witt, president of a New York media-buying concern. "But we don't have enough audience information."

Indeed, it is far from clear that viewers would flock to watch constantly repeated footage of school board rangues, house fires, and intervi with high school coaches. In San F cisco, cable system operators woul touch a cable venture by Chron Broadcasting Co.'s KRON and publi station KQED, fearing it could never viewers away from competing l sports channels.

Local video news pioneers elsewh are plunging ahead anyway. "If don't do it, somebody else will," Robert J. Gremillion, a broadcasting ecutive at Tribune Co., which will la a channel in 1991 to compete with C go Cable Network. By providing gramming to cable systems, Tribune other companies that own local TV tions hope to stay on top in local kets or to recapture the portion of t audience—and ad dollars—that drifted to cable.

The mini-CNNs aim to exploit the urban niche, which isn't well covere urban stations. Seeing huge, negle markets in the Washington metropol area, financier Joe L. Allbritton p separate news programs for Maryl Virginia, and the District of Columb

SWEET DEAL? Automation can keep penses low for the upstarts. Ora County NewsChannel has a staff of er than 70, plus three robotic camer dubbed Huey, Dewey, and Louie. robots' zooms and cutaways are trolled by a single person in the co room, making camera operators c lete. Another money-saver: integra businesses. Tribune, which owns the cago Cubs, plans to rebroadcast s games on its cable news service.

For advertisers, the channels ma a sweet deal. OCN charges about $10 a 30-second spot, and local car dea supermarket chains, and carpet clea are steady buyers. A similar ad on a Angeles local broadcast channel, fo ample, costs up to $15,000. Long Isla News 12, which charges up to $40 30 seconds, has even wooed such co nies as BMW and American Express "We can direct advertising to a par lar town when we want says Karen B. Green, hea advertising for Citiba New York operations.

Those who snicker at th cal newsathons should member: It took much decade for CNN to esta credibility, and now it's to imagine video news out it. CNN clones hop won't take them quite so to achieve that stature—to start making money.

By Peter Hong in Was ton, with bureau reports

HOW CABLE NEWS IS SPREADING

BOSTON Joint venture between Hearst and Continental Cablevision is slated to go on the air late next year

CHICAGO Two channels are under way, one by Tribune Co., one by Fox's WFLD and Tele-Communications Inc.

LONG ISLAND, N.Y. News 12, on the air since 1986, is a Cablevision Systems property

ORANGE COUNTY, CALIF. Orange County NewsChannel, owned by Freedom Newspapers, has been on the air since Sept. 17

WASHINGTON, D.C. Financier Joe Allbritton plans to put his news channel on the air by next year's second quarter

DATA: BW

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Equipped with Garrett TFE731-4 engines, the Citation VII is powered by a total of 8,000 pounds of thrust. So it can climb direct to 43,000 feet faster than any other jet in its class.

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Flying out of hot or high-altitude airports can drastically restrict the range of some midsize jets. Not so the Citation VII. Even under conditions as hot as 92°F, or as high as 5,000 feet, the VII still carries four passengers 2,260 miles, nonstop.

Sophisticated flight deck. Heated windshield. Large, comfortable cabin.

Carrying on the Citation tradition of innovation in every area, the VII offers pilots state-of-the-art navigational equipment, and an electrically heated windshield.

For passengers, the Citation VII cabin provides space, comfort, and amenities you'd expect only from much more expensive jets.

Priced at just $7.7 million.

Though the Citation VII offers so much more, it doesn't cost much more. Just $7.7 million (fully equipped, less interior). To find out more, write Roy H. Norris, Senior Vice President of Marketing, Cessna Aircraft Co., P.O. Box 7706, Wichita, KS 67277. Or call 1-800-4-CESSNA.

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POLITICS

BRADLEY: "I REALLY THINK THAT HAVING GONE THROUGH THIS, I'LL BE A BETTER POLITICIAN"

BRADLEY AND GINGRICH ARE STILL RUNNING SCARED

After narrow wins, they're listening harder to their constituents

Barely a month ago, Democratic Senator Bill Bradley's political future seemed boundless. Today, as he speaks at the New Jersey high school coaches' annual banquet, you would think the former basketball star had just blown a jump shot at the buzzer. "We've all had setbacks," Bradley says. "That doesn't mean you quit. You work just as hard to improve your game. For those of you who voted against me, I'll still represent you as best as I possibly can."

Several hundred miles south, on Dec. 1, the conservative movement's *enfant terrible,* Representative Newt Gingrich, strikes an uncharacteristically congenial pose. He's greeting constituents at the Fayette County Republican Party Christmas brunch in Peachtree City, Ga. In two days, he will be reelected House GOP whip. But now, that doesn't seem so important. "The people are my customers," Gingrich says. "If they want to see me in the neighborhood, they'll see me."

Those still looking for lessons in last November's elections should ask Bradley and Gingrich. Better yet, consult former House Speaker Tip O'Neill, who always reminded his fellow Democrats of the axiom: "All politics is local." That message was seared into the psyches of these two ambitious pols when each narrowly escaped humiliating defeats in what were supposed to be shoo-in races.

That's why two national stars such as Bradley and Gingrich could be found in Edison, N. J., and suburban Atlanta's Aberdeen Woods Conference Center. Call it the politics of contrition. Instead of rushing back to Washington, Newt and "Dollar Bill" are staying close to home. After years of apathy around election time, voters this year gave politicians a strong warning: Ignore us at your peril. Says Michael McCurry, former communications director of the Democratic National Committee: "When [voters] see they can really send a message, like they did to these two guys—watch out, Congress."

Bradley, often mentioned as a Presidential contender, concedes that "politicians aren't talking about what's on people's minds anymore." His speeches used to touch on such grand themes as Third World debt relief and Soviet aid. Now he says, "you have to talk about issues that affect people's lives. I really think that having gone through this, I'll be a better politician, maybe a better person." And he flatly rules out a run for the Presidency in 1992.

Despite his 1% win over an unknown and underfunded opponent, Bradley remains popular at home. Voters were leaking out on the Senator their growing anger at Democratic Governor James J. Florio. They are infuriated by Florio's $2.8 billion tax increase and scheme to redistribute education money from rich to poorer communities. Bradley never distanced himself from the Florio tax during the campaign and now has to sprint to make it up to his riled constituents. He even has his own proposal for a middle-class cut: a 10% income-tax credit against the Social Security tax. "He's got the message, all right," says William Schneider of the American Enterprise Institute. "Woe to the politician who keeps talking about taxes."

ANGRY MAYOR. Gingrich's antitax stance may jibe with national trends, but local issues clobbered his standing with the home folks. Most of Atlanta's Hartsfield International Airport is in his district, and Gingrich angered striking Eastern Air Lines workers by opposing federal intervention in a bitter strike. Also irritating to locals was his failure to thwart stop a planned fifth runway that would have sent planes directly over the town of Forest Park. "I got the feeling that whenever I called or wrote, I was being a nuisance," says Mayor Matt Simmons. "I know I'm just one person. But I represent 18,000 constituents."

Gingrich could face an even tougher race in 1992, after the Democratic state legislature redraws district lines. But while he knows what he has to do to improve his chances, sometimes Gingrich can't help himself. He was chatting with voters at the brunch—until he started talking about "paradigms" for government reform. "I'm not sure this district is ready for such a big thinker," one man whispered to a neighbor.

For now, it's back to the basics: shopping malls, coffee klatches, and Chamber of Commerce lunches. If voters can send such shots as Bradley and Gingrich back to political boot camp, the anti-incumbent sentiments that seem to fade during election '90 may suddenly reappear.

By Douglas Harbrecht in Edison, N. J., and Walecia Konrad in Peachtree City, Ga.

GINGRICH: "IF THEY WANT TO SEE ME . . . THEY'LL SEE ME"

"A Chrysler air bag saved my life."

March 8, 1989

Mr. Lee Iacocca, Chairman of the Board
Chrysler World Headquarters
12000 Chrysler Drive
Highland Park, Michigan

19128 Merriman Road
Livonia, Michigan 48152

Dear Mr. Iacocca,

I am writing to thank you and your team of engineers for having the forethought and expertise to install air bags in the Chrysler LeBaron.

On February 23, 1989 while traveling eastbound in the left lane a driver to my right made a left turn directly into the right front end of my car forcing me up over the median strip and head-on into a tree. I was traveling approximately 45 miles per hour, the accident occurred so quickly I had absolutely no reaction time. I am certain I made impact with the tree going between 40 and 45 miles per hour.

I am living testimony that the air bag was the single item that saved my life.

Needless to say, I totaled my 1988 LeBaron, but I walked away with a few bruises and bumps. In fact, my injuries were so minor I refused emergency medical treatment at the scene of the accident.

Speaking on behalf of the eight to ten police officers and paramedics as well as some 20 people gathered after the accident, we all agreed the air bag was my lifesaver.

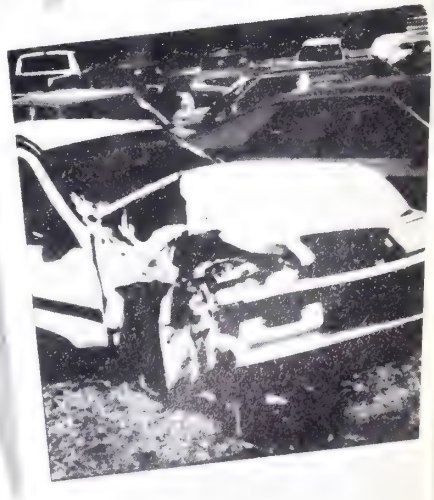
I am currently in the process of purchasing a new vehicle, and do y what kind of car I am buying next? You got it, the one - the only the LeBARON.

People say I was lucky, I say luck had nothing to do with it.

Again, my sincere thanks to you all.

Very truly yours,

Karen Loiselle McGowan



reminder: Chrysler Motors Corporation is the only American carmaker to river-side air bags in every passenger car they build in the U.S., from the st to the highest priced models.

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CUISINE

PITY THE TRUFFLER . . . HIS TROUBLES ARE MUSHROOMING

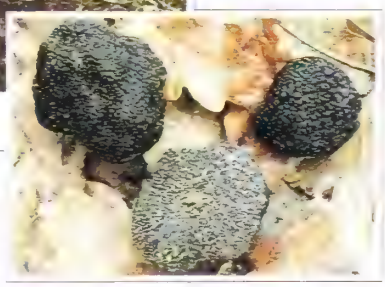
French growers of the fungus face rivals abroad and legal woes at home

Ever taste a truffle and wonder what the fuss is all about? The fault may not be with your palate. A yearlong probe by French consumer fraud inspectors has confirmed a practice that truffle industry insiders have known about but winked at for 50 years: Unscrupulous canners of the pricey black fungus routinely mix in chunks of a cheap white truffle—dyed black with walnut stain—that is as gastronomically exciting as a turnip. Four French processors now face a court trial and possible fines of up to $50,000, or even prison.

The prospect of history's first truffle trial is sending shock waves through southern France, where truffle hunters are trudging through fields this month with dogs and pigs to begin sniffing out their underground winter harvest. More than mere product tampering, *l'affaire des truffes* is a blow to France's self-image. Generations of French chefs and their imitators around the world have grated truffles onto their finest creations, from pâté de foie gras to omelettes.

DYEING BREED. It's easy to see, though, why canners are tempted to tinker. World output of truffles is plunging. France, the top producer until a decade ago, uprooted 1,000 tons of black truffles yearly in the 1920s. But overplanting of oak trees that attract the fungus ruined soil, while recent dry summers have killed crops. French output this winter may fall 40%, to a record low of just 10 tons. Production is also expected to be off in Italy and Spain, the other main producers. If so, the average wholesale price, $110 a pound in France last year, will soar.

Since the tasteless white "summer truffle" costs one-tenth as much, a wave of dyeing has hit truffledom, claims Hu[illegible]q, a French government fraud investigator. "When there's little supply and lots of demand, people get ideas," he says. New demand is coming from—guess!—Japan. For instance, two prominent Osaka chefs recently trekked to Italy to learn more about cooking with truffles. As a result of Japan's growing appetite for the fungus, truffle hunters are now also facing that bane of Western industry, Japanese competition. For local consumption, some Japanese companies are canning a bogus fungus made of starch, gelatine, and chemical flavoring and calling it a truffle.



TRUFFLE SNIFFING: PIGS FIND THE ONES THAT DOGS MISS

With truffle-hunting truffles proliferating, producers of the real thing fear their product will lose its cachet. Dyeing summer truffles isn't illegal in Spain, and the French claim it's tolerated in Italy. Italians point at Yugoslavia. To end the buck-passing, trade groups in Italy, Spain, and France want governments to adopt a European Truffle Charter, outlawing dyeing and setting quality standards. "The need is urgent," insists Miguel Angel Escribano, a director of Spanish truffle canner Arotz.

Beyond regulation, truffle[illegible] counting on technology to boost ou[illegible] and thus encourage honesty. Frenc[illegible] searchers are developing truffle fer[illegible] ers and irrigation techniques. Previ[illegible] ly, truffles were thought to [illegible] uncultivable. But now researchers t[illegible] that inoculating truffle spores [illegible] oak-tree roots before planting alm[illegible] guarantees a harvest—10 to 15 y[illegible] later. Early plantings from the [illegible] 1970s are paying off, and farmers [illegible] getting $400-an-acre state subsidie[illegible] plant more.

GEIGER COUNTER. Further innovatio[illegible] coming. On Dec. 17, France will open[illegible] first electronic truffle market, with t[illegible] ers and sellers hooked up by the nati[illegible] Minitel videotex system. Traditi[illegible] truffle trading tends to be done ar[illegible] a village cafe table, with two or t[illegible] farmers and a canning company r[illegible] sentative haggling over a *vin ro*[illegible] Thierry Talou, an engineer at the [illegible] louse School of Chemistry, has eve[illegible] veloped a truffle Geiger counter [illegible] distinguishes odors much as drug-s[illegible] ing devices used by customs agent[illegible] He hopes to market the machine[illegible] $4,000—comparable to the upkeep [illegible] truffle-sniffing dog over five y[illegible] Dogs have replaced pigs in most o[illegible] rope; although less accurate, they're[illegible] ier to transport. "Try training a p[illegible] get in your car," says Patrick Rej[illegible] French farm adviser.

Old-school truffle hunters scoff at such [illegible] ideas. Replacing dogs with electr[illegible] "would take all the poetry out of [illegible] says Professor Anna Fontana, dir[illegible] of Italy's Mycology Center in Turi[illegible] deed, if supplies of truffles stay [illegible] for long, pigs could even make a c[illegible] back—they find truffles dogs miss. [illegible] ian traditionalists also doubt French [illegible] tivation claims. In an Italian field [illegible] tree-root inoculation produced a [illegible] that kills truffles

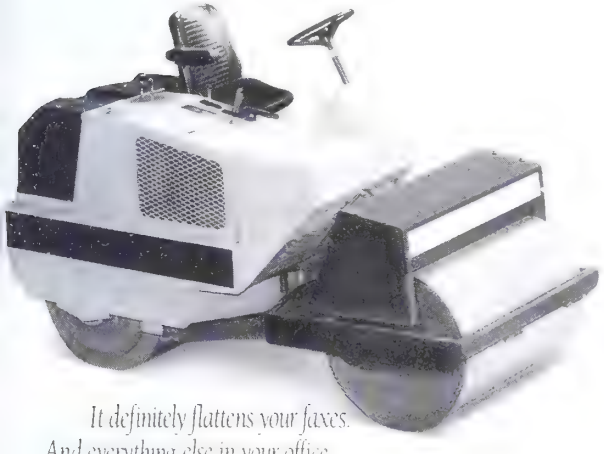
If the Italians [illegible] right, gourmets [illegible] crave the nutty [illegible] of real ones will [illegible] tinue paying thr[illegible] the nose. Fauchon[illegible] classy Paris [illegible] store, charges $[illegible] for a can of top-g[illegible] black truffles w[illegible] ing under one pound. And no gu[illegible] tees. Fauchon thinks its suppliers [illegible] reliable, but "we can't know for [illegible] what they put in their cans," ac[illegible] Christian Hue, a store buyer. The [illegible] truffle trial, likely to start next m[illegible] may shed more light on that que[illegible] than the truffle industry cares to s[illegible]

By Stewart Toy in Paris, with Fred Kc[illegible] in Milan and Ana Westley in Madrid

Four Inexpensive Ways To Get Flat Faxes.

It flattens your faxes but it will leave them moist or even worse, burnt.

It requires way too much elbow grease to flatten faxes. And really, a rolling pin's place is in the kitchen.



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Barbara Champney author of "A Ten Minute Guide To A More Productive Office"

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In Business This Week

EDITED BY HARRIS COLLINGWOOD

CHILD WORLD SHUTS ITS CHECKBOOK

▶ Child World, the ailing toy retailer with 282 stores nationwide, is counting its pennies. In a bid to conserve cash and stay alive, the company has told vendors and lenders that they will have to wait until mid-January to be paid any of the $300 million due them. The announcement, made during the third week of an anemic holiday selling season, appears calculated to give toymakers and bankers one choice: accept the terms.

Child World is reaching yearend in worse shape than ever. Pretax losses in the first nine months ballooned 74%, to $44.7 million, compared with the same period last year. To boost sales—and put the heat on rivals Toys 'R' Us and Lionel—Child World plans aggressive inventory markdowns through Christmas.

BTR MAY BE IN A BUYING MOOD

▶ Before John Cahill retires as chief executive of Britain's BTR, he has a suggestion for his successor at the sprawling conglomerate: Rev up the acquisition motor. Cahill, 60, is turning over the top spot on Jan. 1 to an Australian, Alan Jackson. He will be taking over a parent company with estimated 1990 sales of $13 billion. Its key markets in auto parts, construction, and consumer products are all suffering from the economic downturn. Cahill says the slump should provide good bottom-fishing opportunities for well-heeled buyers.

EASTERN'S NEW BLACK EYE

▶ For Eastern Air Lines, it's one step forward, two steps back. Just days after the carrier won approval from a federal bankruptcy judge to draw $135 million out of a creditors' escrow account to keep flying through March (page 29), it was making headlines of a less welcome sort.

On Dec. 1, federal agents raided Eastern's offices and carted off airline-maintenance records. The search was part of a federal grand jury probe into allegations that Eastern falsified the reports. Sources familiar with the case say the jury is looking into incidents as recent as November.

The investigation has already resulted in indictments of 10 current and former employees. The airline and 8 of the 10 workers have pleaded innocent to the charges, while two have pleaded guilty.

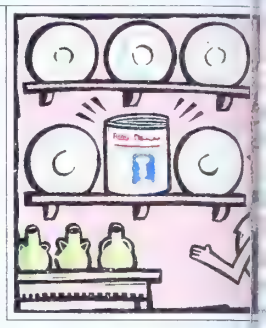
COKE AND PEPSI RUSH TO GO GREEN

▶ In the cola wars, being first is everything. In the latest illustration of this principle, PepsiCo and Coca-Cola are fighting over which company will be first to introduce a plastic bottle made of recycled materials.

Pepsi gets points for being first with the announcement, at 10:57 a.m. (EST) on Dec. 4. Coke's release followed by 22 minutes. But Coke argues that it is much further ahead in the recycling race: Its process, developed with Hoechst Celanese, has been up for review at the Food & Drug Administration since last summer—implying that Pepsi rushed its press release to beat Coke.

Pepsi denies that, saying its release was timed to coincide with a big executive powwow. Goodyear Tire & Rubber, whose process Pepsi will use, is set to meet with the FDA soon.

TALK ABOUT CRACKPOT JOURNALISM



The idea seemed *sensationnelle:* printing the December cover of France's top gastronomy magazine, *GaultMillau,* on a one-pound slab of Limoges china. But this ultimate venture in hard-cover publishing, promoting Limoges as a "modern" product, quickly went awry.

Limoges makes great dishes, but it turns out that flat pieces tend to crack when fired. Half the covers did, pushing production costs to $70 a co $175,000 for a limited run of 2,500. Then, demand for the copies was so strong that deprived readers and news ve flooded the 125,000-circulation magazine with complaints

"We wish we hadn't done it," sighs a beleaguered *Millau* official, who just hopes the whole flap will blow As well he might, since printing more of the special ed would be tough: An hour after shipping the china cover plant that made them burned down.

U.S. DRUGMAKERS ARE HEADING FOR MOSCOW

▶ Seven blue-chip U.S. companies and more than a dozen Soviet partners signed an agreement on Dec. 4 to create the American-Soviet Medical Consortium. The U.S. partners, including Pfizer, Colgate-Palmolive, and M Service Partners, are e ed to set up at least six ventures over the next with initial investments mated at more than $25 lion. Colgate has already a plant near Kiev to ma ture toothpaste.

Since improving the s of medicine is now a top et priority, the consortiu won tax breaks from the ernment, says Dennis the lead negotiatior fo U.S. companies. But partners don't expect t any dollar profits for at five years.

A BIKE RACE AND THE DONALD SPLIT

▶ Attention, cyclists and who are keeping trac Donald Trump's dwin empire: The Tour de T bicycle race is no more race, an 11-day, 1,200-m travaganza that through several Northea states, will hencefort sponsored by Du Pon will be known as, natc Tour Du Pont.

Du Pont is an ob choice: The chemical makes Lycra, the stret ber that makes cycling fit like a second skin.

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Std. output paper tray capacity	✓ 100	50
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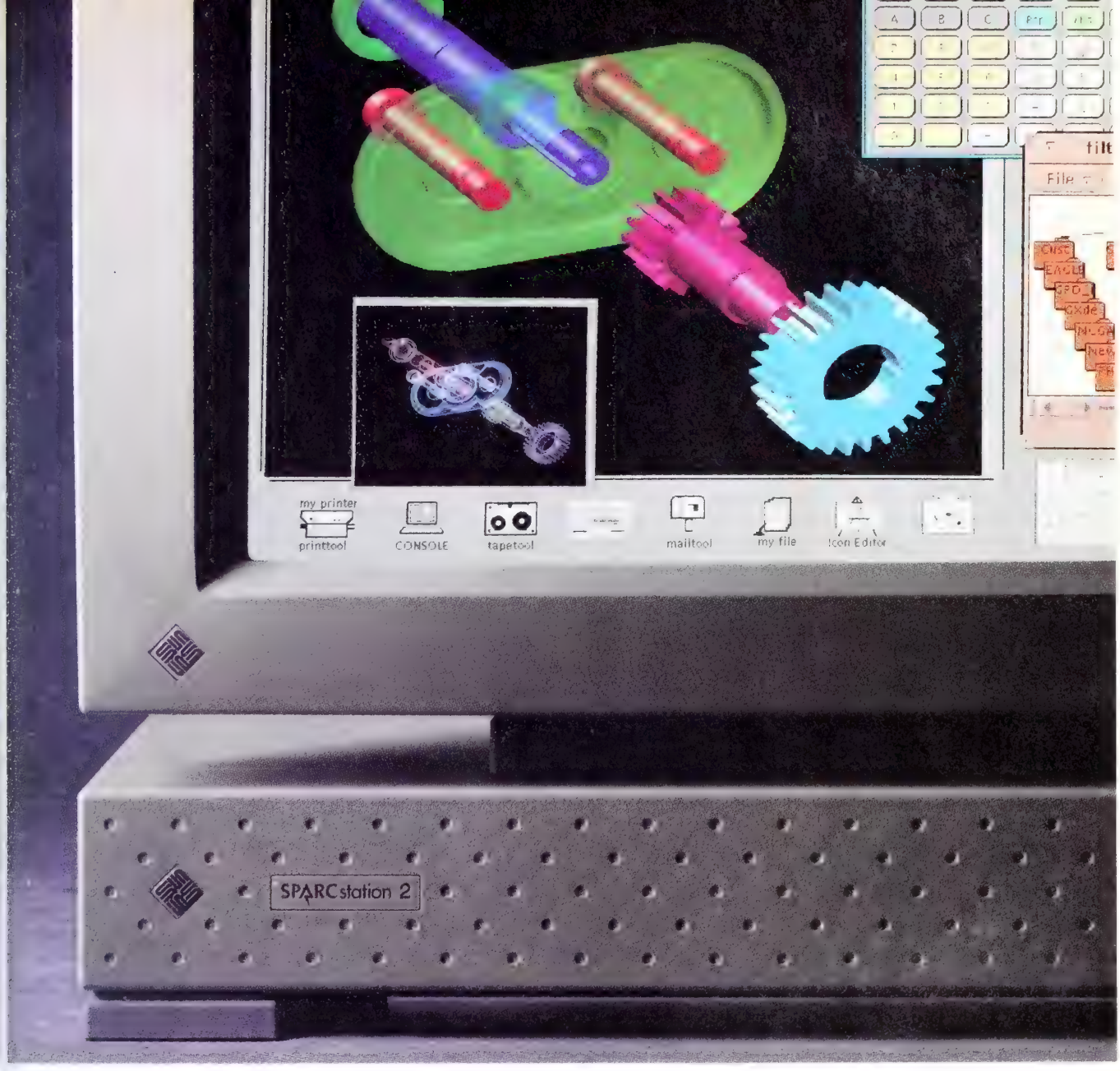

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SOVIET UNION

MOSCOW STARTS CLEARING THE RUNWAYS FOR CAPITALISM

Aeroflot plans to open its market to the West and spin off five airlines

It could be the biggest corporate breakup of the decade, reshaping the airspace of an entire country. But there are no sky kings such as Carl C. Icahn involved and no megabuck borrowings. Instead of an oak-paneled boardroom in New York, the deal is being drawn up in a drab Moscow office with a portrait of Lenin on the wall. Starting early next year, the Soviet airline Aeroflot is expected to launch a vast restructuring, spinning off five independent airlines and opening the Soviet market to Western companies.

Aeroflot may be one of the first of the Soviet Union's lumbering state monopolies to be transformed in the struggle to introduce a market economy. In January, approval is expected for Aeroflot's blueprint to give more managerial power to the airline's regional divisions and set the stage for greater domestic competition in Soviet air travel.

BAD REPUTATION. That's a tall order for Aeroflot, whose managers must shake off a reputation for poor service. Flight crews and ticket clerks can be rude. Shortages of fuel and spare parts make for frequent delays, especially on domestic flights.

Aeroflot is hoping to change all that, and attracting foreign cash is a crucial first step. "Without foreign investment, this market won't develop. We need billions," says Vladimir M. Tikhonov, director general of Aeroflot's International Commercial Dept. He and his boss, Civil Aviation Minister Boris Panyukov, are moving quickly. Twenty-two of Aeroflot's 35 regional divisions recently won the right to negotiate directly with foreign companies. From Kiev to Kamchatka Peninsula on the Pacific, talks are under way with foreign companies to train workers, rebuild airports, and manufacture air-traffic-control equipment.

Under the ministry's plan, the 22 divisions, long tightly controlled by Moscow, will gradually assume more financial and managerial independence. In the next year, several divisions are expected to buy scores of Aeroflot's aircraft and turn themselves into independent airlines. Already, the Lithuanian division has leased 35 passenger aircraft from the aviation ministry and started its own airline that flies to Berlin, Warsaw, and Sofia. It wants to set up a publicly held company. In Kiev, managers hope to set up a Ukrainian airline and will start talks next month with Pan American World Airways Inc. about a new Kiev-New York flight.

Other deals are in the works. Several time zones to the east, Air Caucasus and Central Asia Air could spring up, covering an area roughly two-thirds the size of the U. S. In Siberia, Aeroflot's Magadan division has agreed to unload and refuel flights of Seattle-based Alaska Airlines Inc. Starting on June 17, three flights a week will link Anchorage to Magadan and Khabarovsk in the Soviet Far East. Aeroflot units are also talking to Lufthansa, Air France, and Swisa to link second-tier Soviet cities such Tbilisi and Tallinn to Europe's capit

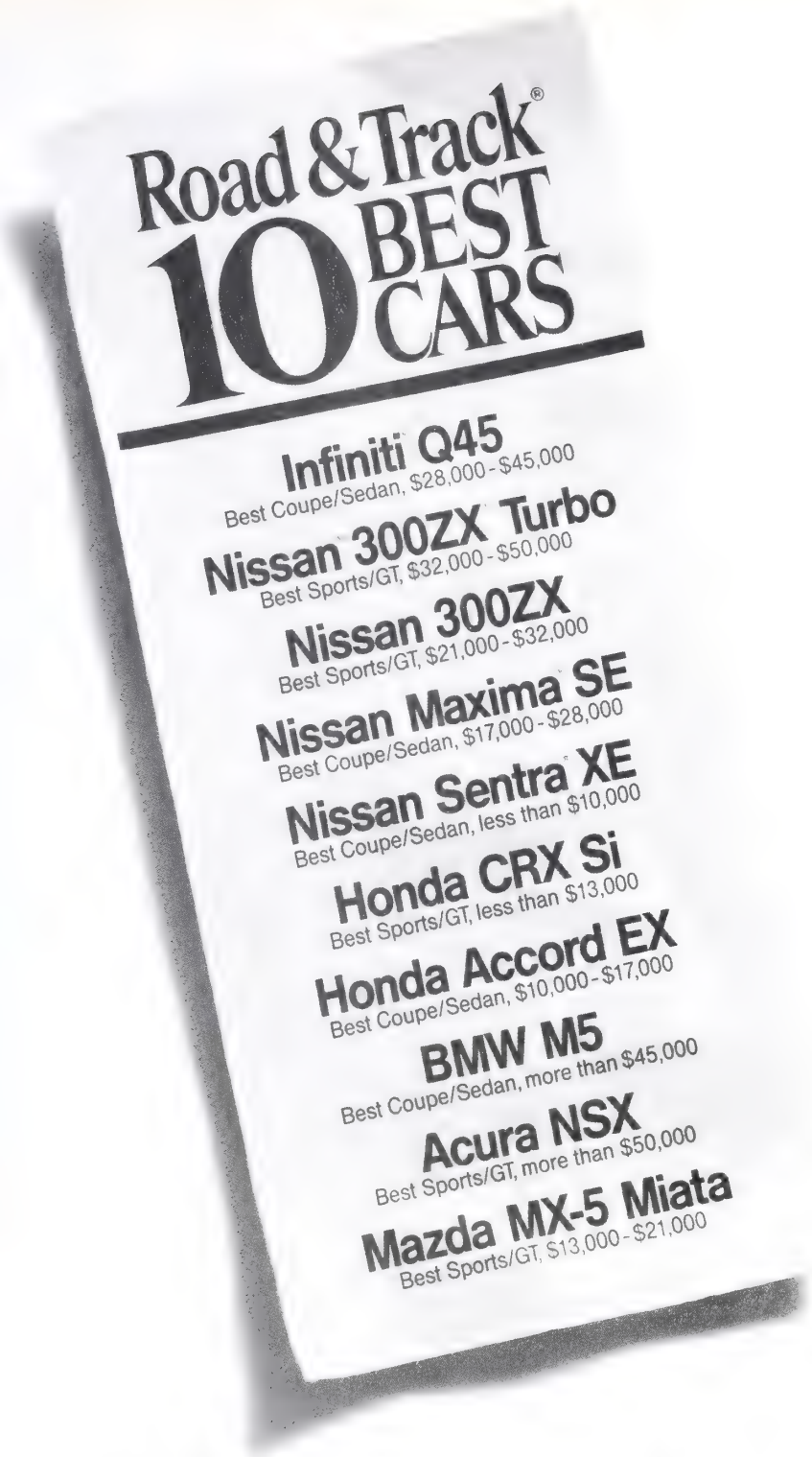
The most developed project is Air sia, a joint venture between British ways PLC and Aeroflot. The airli says Tikhonov, are nearing a final ag ment to lease six Boeing 747s for fli to Europe and the Far East sta in 1993.

But Aeroflot's big plans could hit ous turbulence caused by political economic turmoil in the Soviet Un Last Apr. 5, Aeroflot signed a joint ture worth $500 million to expand operate new passenger and freight minals and a hotel at Moscow's Sh metyevo Airport. But the consortium by Lufthansa has stumbled. A bank cial close to the deal notes that it six months to register joint-venture agreem Since then, an unending ries of economic dec has left the foreign ners wondering about legal standing and whe Moscow will su guarantees ne to win bank government crec And while Aerf seems set on de tralization, its hea fice resists ceding tral control over currency earned by th gional divisions. So, the divisions buy out state's assets and se shop under their names, Aeroflot will c the money and decide to dole it out—thus ing growth.

For now, there's much money to go ar Aeroflot's hard-curr earnings, about $180 lion in 1989, plunged year. Relaxed emigr and travel policies have left Aer handling tens of thousands of new et passengers who pay in nearly w less rubles, while Aeroflot's costs i eign cities are set in hard currenc help make up for losses, Aerofl dropping unprofitable routes to long Soviet client states in Africa and ing ambitious plans for new fligh hot spots such as Chicago, Miami San Francisco.

Making many more such hard-s decisions is critical for Aeroflot. Wi such jolts, the airline will never g the ground as a competitive enter

By Rose Brady in Moscow, with Templeman in Bonn



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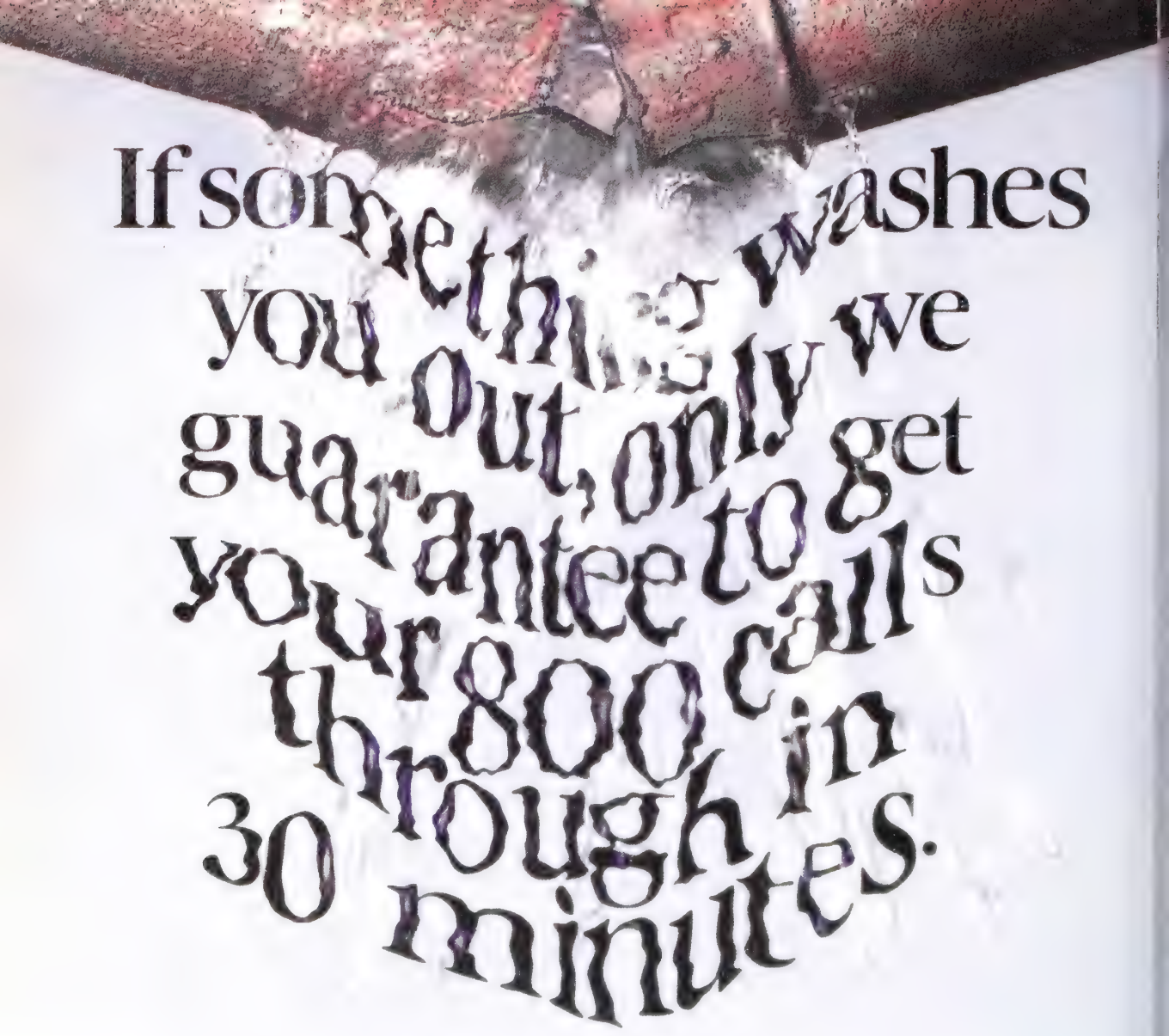

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EDITED BY JOHN PEARSON

HE PATH TO MIDEAST PEACE S RIDDLED WITH MINES

resident Bush's decision to send Secretary of State James A. Baker III to Baghdad and receive Iraq's Foreign Minister in the Oval Office is speeding up momen- toward either war or a settlement of the Persian Gulf is. Bush insists the meetings are not to negotiate but to eat the U. N.'s ultimatum: Saddam Hussein must withdraw n Kuwait, restore its government, and release hostages. ut Bush's move may create a mine field of new problems. already stirring up new peace initiatives and even talk of a g-term containment strategy. Reports that Saddam is ready vithdraw from Kuwait if he can keep two strategic islands a portion of a disputed oil field have also encouraged such

WOULD SADDAM'S FORCES STAY INTACT?

is. U. S. allies want to discuss new pro- als, dealing with problems ranging n regional security to curbing nuclear pons as part of the Iraq issue. Mean- le, Bush is relying on U. N. decisions the basis for his rigid approach. But allies know there is room for negotia- s in U. N. texts such as Resolution which calls for talks between Kuwait Iraq.

Vith expectations rising for a peaceful lement, it could be harder for Bush to nch a military strike, despite the N.'s warning to Iraq to withdraw by . 15—a deadline that still could be postponed. If Bush ies out his threat, heavy loss of American lives could stir ntment that the allies are not making their share of the ifices. Americans could suffer as much as 90% of the allied ualties, military experts predict.

IE CARROTS. Talk of delay or compromise worries Middle t states aligned with the U. S. such as Saudi Arabia and el. Alarmed that Saddam might be left with his military er intact, officials in Riyadh and Jerusalem are calling for on, not talk. In Europe, however, Bush's offer has been ed with relief. The European Community intends to hold s of its own in Rome with Iraqi Foreign Minister Tariq Aziz. Says an Italian official: "It seems we may not have the war against the Arab Hitler that we all expected."

There is no indication that any Arab members of the gulf alliance would accept less than full Iraqi compliance with the U. N. resolutions. But most would probably agree to a compromise—led by the Arabs, not the U. S.—that would provide some carrots for Saddam. It would include guarantees that he would not be attacked and possibly a tacit agreement that he would eventually get financial aid from Kuwait or the use of Kuwaiti islands that provide better access to the gulf.

Any settlement should curb Iraq's military power while allowing it to "rejoin the world economic community," says Anthony H. Cordesman, an aide to Senator John McCain (R-Ariz.). And to bolster economic stability in the gulf, he says, "the rebuilding of Kuwait needs to be commenced rapidly." However, the arms embargo should be kept on Iraq for several years after a settlement, many observers agree. Informal discussions are under way to broaden COCOM—the 16-nation organization originally set up to prevent exports of sensitive technology to the Soviet bloc—to include aggressors such as Iraq. Such controls might hamper Iraq's push to develop nuclear, chemical, and biological weapons. McCain has proposed laws embargoing arms to Iraq, and Egyptian President Hosni Mubarak has called for an agreement by Middle East countries, including Israel, to eliminate strategic weapons.

However, arms control in the Middle East faces formidable obstacles. Although the arms embargo against Tehran during the Iran-Iraq war was partly successful, Iran continued to get weapons from sanctions-busters such as China and Israel. For President Bush, managing peace in the world's tensest region could prove as difficult as waging war.

By Stanley Reed in New York and John Rossant in Rome, with Russell Mitchell in Washington and bureau reports

OBAL WRAPUP

RITAIN

ledgling Prime Minister John Major is already signaling policy shifts at me and abroad. On the eve of the c. 13 European Community summit Rome, Major is serving notice that will be more conciliatory on EC inteation than predecessor Margaret atcher. Although he remains opsed to a hasty imposition of a com- n currency, Major is ready to push compromise plan for a "hard Euroan currency unit"—a transitional easure. And on foreign policy, Major now willing to discuss proposals to oaden the EC's role in security, at the ssible expense of NATO.

At home, Major is likely to spend more on health care and education. And he is considering overhauling or even scrapping the unpopular poll tax that hastened Thatcher's demise. With their new leader, polls show the Tories 11% ahead of the Labor Party, which had a 15% lead just three weeks ago.

CHINA

Beijing is winning its gamble that sanctions imposed by the West in support of pro-democracy dissidents would eventually erode. Although China's political repression continues, the European Community lifted its sanctions in October. On Nov. 29, the Asian Development Bank, in which the U. S. and Japan are major shareholders, approved a $50 million loan to China. Then, on Dec. 4, the World Bank approved a $110 million loan for China's rural industries.

The U. S. continues some economic sanctions, but President Bush rewarded China's support in the U. N. against Iraq by meeting with Foreign Affairs Minister Qian Qichen on Nov. 30, even though Beijing abstained on the crucial U. N. vote authorizing military force. Beijing's publicized step-up in the prosecution of dissidents on the eve of Qian's visit was intended, U. S. officials believe, to underscore Chinese leaders' disdain for Western pressures to ease political curbs.

BY CUTTING BANK RESERVES, GREENSPAN HOPES TO DEFLECT CRITICISM THAT WASHINGTON ISN'T TAKING THE DOWNTURN SERIOUSLY

ATTACKING THE RECESSION —WITH A PEASHOOTER

The Fed's move signals a shift away from fighting inflation, but it won't boost lending much

For months, as private forecasters piled onto the recession bandwagon, Alan Greenspan squinted through his heavy lenses and insisted that he just didn't see the classic signals of a downturn. The Federal Reserve Board chairman argued that lean inventories and busy factories could keep business growing at a slow but steady pace. And Greenspan's view was widely shared within the central bank: As recently as October, three of the 11 voting members of the Federal Open Market Committee opposed a move to lower interest rates, in part because they thought the economy was just in a lull.

The Fed chief still can't bring himself to utter the dread "R" word. Testifying on Capitol Hill on Nov. 28, he ventured no further than to declare a "meaningful downturn in aggregate output." But actions speak louder than words, and the Fed's actions on Dec. 4 leave little doubt that the central bank has switched its dominant concern from fighting inflation to softening the recession.

After twice trimming short-term interest rates, the Fed pulled a long-neglected policy lever when it cut by more than 20% the reserves that banks and thrifts are required to maintain against some kinds of deposits. The move, which freed up $13.6 billion, was designed to bolster lending—and defuse Bush Administration criticism that the Fed isn't taking the threat to the economy seriously.

The problem is that banks may not respond with a gusher of new loans. Lending officers, keeping a close eye on customers' deteriorating income statements and balance sheets, "aren't going to lower their credit standards just because Greenspan has thrown them a bone," says Sung Won Sohn, chief economist at Minneapolis' Norwest Corp.

CREDIT DROUGHT. Still, the Fed's action was a powerful statement. Reserve requirements haven't been changed since 1983. But as Greenspan has insisted all along, this isn't your usual manufacturing-led slowdown. Easier monetary policy usually tries to stimulate housing, consumer spending, and business investment through lower interest rates. This time, the Fed is trying to break a drought in bank lending that has driven credit-seeking businesses to despair. The reserve cut tells banks that "the Fed is serious that it doesn't want a credit crunch," says Roger V. Smith, chief

tive officer of Silicon Valley Bank in
ta Clara, Calif.

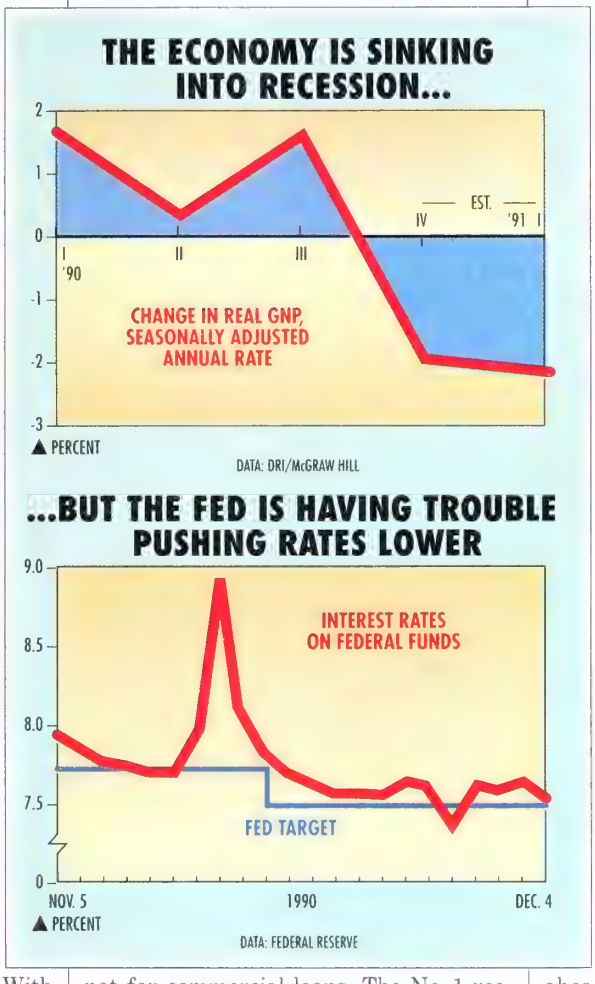
By reducing the amount of money
t depository institutions must keep in
interest-bearing reserve accounts at
ional Fed banks, the change will add
much as $600 million to banks' after-
profits next year. That's welcome
s when earnings are off and capital
ds are rising. But though bank
ks rallied, the added profit will be
re than offset by scheduled in-
ases in bank-deposit insurance
miums early in 1991.

The Fed's action doesn't entirely
olve the tension within the cen-
bank over the relative dangers
ecession and inflation. The cut
reserves could help the Fed
n its struggle to bring rates
n to its current target of 7.5%
federal funds (chart). But the
is unlikely to let rates go
h lower than that, because
t might spook the inflation-
y bond and currency markets.
it may soak up much of the
money created by lowering
erve requirements through
n-market operations. "You
uld act on the assumption that
ill be 99.9% neutralized," says
op staffer at a Fed regional
k. The clearest evidence that
central bank's anti-inflation
ks are still exercising a large
uence over policy is the Fed's
ctance to cut the discount rate,
ged at 7% since February,
).

he Fed's elimination of reserve
irements reversed long-stand-
policies. To control the money
ply, the Fed has subjected to
erve requirements both check-
deposits and short-term certifi-
s of deposit held by business-
The money supply, though, no
ger preoccupies policy makers. With
Fed now focused mainly on interest
s and credit conditions, Greenspan
s the requirements on business-held
are obsolete. The $13.6 billion in
ds freed up by the elimination of the
erve rules can be either lent or used
buy securities. The Fed hopes the
e will give banks an added incentive
nd to creditworthy borrowers to off-
the effects of increasingly tight loan
ns.

ut if the Fed is hoping for a burst of
ling, it's likely to be disappointed.
ks' response will be "nothing bigger
a bread box," says an executive of
New England superregional bank.
rent commercial borrowers whose
rates are tied to their banks' cost of
ds could see a slight drop in rates.
new borrowers will find little relief.
kers say most of the money will go
directly into safe Treasury securities,
not risky business loans. Giant Citicorp
estimates, for example, that the move
would free up a mere $30 million to $50
million for new loans.

Banks won't lend because bankers are
mired in a slough of despond. In the
Fed's latest quarterly survey of lending
standards, only one institution out of 58
said it had eased its credit standards—
and then only for residential mortgages,
not for commercial loans. The No. 1 rea-
son cited by those banks that tightened
credit rules: a less favorable economic
outlook. Bankers also argue that good
borrowers aren't beating down their
doors, as evidenced by the fact that in-
terest rates are falling right alongside
loan volume. "The reluctance of banks
to lend has more to do with this environ-
ment than the fact that there isn't
enough money to lend," says Comptrol-
ler of the Currency Robert L. Clarke.



Bankers say most of the reserves will go directly into safe Treasury securities, not business loans

Washington has been struggling to figure out ways to crack through the gloom. The Fed's move will help a little: "Psychologically and symbolically, it has more importance than the numbers indicate," says Thomas E. Jones, chief financial officer at Citicorp. Other regulators are trying to reinforce the message that banks should relax restrictive lending policies. The Comptroller's examiners, for example, are stressing that banks should try to restructure some troubled loans, "not just push borrowers out on the streets or foreclose," Clarke says.

SEIDMAN'S SURPRISE. Regulators, however, are not united in support for the Fed move. Federal Deposit Insurance Corp. Chairman L. William Seidman complained that he was surprised by the cut in reserves, since he had proposed using banks' reserve deposits at the Fed to recapitalize the FDIC's ailing Bank Insurance Fund. Bolstering the bank fund, which could suffer heavy losses in a deep recession, is one of the Bush Administration's top priorities for 1991. "I guess Greenspan thought there would be more use [for the reserves] in the way he proposed," Seidman says.

Intramural bickering aside, there's little that Washington can do to stimulate lending soon. Greenspan believes that lending might improve in January, after banks wrap up their yearend window dressing—cleaning up balance sheets by reducing loans and boosting capital. What is really needed is something to break the recessionary psychology, such as resolution of the standoff between the U. S. and Iraq.

Greenspan and his ever-cautious Fed colleagues are already looking ahead to that day. When the squeeze on lending eases, the Fed chief fears, easier credit will multiply the impact of Fed rate cuts and risk overstimulating the economy. Greenspan, who believes his place in history will rest on his progress against inflation, doesn't want to take that chance. Instead, he's proceeding with small steps that carry as much symbolic freight as economic significance. Such gradualism worked well at slowing the economy—as it turned out, too well. But there's no guarantee it can boost the economy out of recession. Greenspan could end up having another place in history: as the man who let America's longest economic expansion deteriorate into a serious recession.

By Mike McNamee in Washington, with John Meehan in New York, Geoffrey Smith in Boston, Catherine Yang in Washington, and Joan O'C. Hamilton in San Francisco

BY GENE G. MARCIAL

TWO SUITORS ARE TAILGATING QUAKER STATE

On the high road in the late 1980s, when it was an active buyout candidate, Quaker State has hit the low road, falling from 27 in 1988 to 8 in mid-October. But lately, it has started to show signs of life, rising to 10½ on takeover talk.

Two years ago, this major producer of automotive oils and lubricants thwarted an unsolicited $26-a-share bid from a New York investor group. Now, a group led by investment pro Mario Gabelli has accumulated an 8.17% stake, paying from $8.50 to $10 a share. And it looks as though Gabelli isn't through yet.

He's not the only one who likes Quaker. Elf-Aquitaine, the French oil, gas, and coal company, which was rumored to have been interested in a friendly acquisition in 1988, is believed to be in the ring again. One big New York investment manager says Elf-Aquitaine is eager for a friendly buyout or merger.

Quaker may have its own agenda, however—one that doesn't include being taken over, at least not yet. The Quaker name is already well-recognized in such overseas markets as Japan, Canada, and Mexico. But the company is determined to expand its reach in Europe, particularly in Germany.

In early 1990, Quaker sold a small oil refinery and a wax-processing plant for $30 million, which enabled it to cut long-term debt from $97 million to $61 million as of Sept. 30. The word is that if left to its own devices, the company would sell some more assets, including its money-losing coal operations, its Truck-Lite unit (which makes auto and light-truck parts), and possibly its profitable Heritage Insurance group. Analyst Alvin Silber of Brean Murray, Foster Securities puts Quaker State's breakup value at $25 a share.

SERVICE WHIZ. Silber believes that the company intends to focus on consumer-oriented lubrication products and services. Quaker operates 380 Minit-Lube auto centers as well as 80 McQuik's Oilube service stations. Earlier this year, the company formed Quaker State Oil Refining to manage the distribution of Quaker motor oil and other auto-care products.

So even without a takeover, Quaker is attractive as an earnings-turnaround investment. The probable earnings gains ahead haven't been recognized by the Street yet, says Silber, who expects earnings to rise to 80¢ a share in 1990 and $1.50 a share in 1992, vs. 1989's 18¢. A Quaker spokesman said he wasn't aware of any buyout talks.

THE UPJOHN FAMILY: READY TO GET OUT?

Upjohn is again the rage in takeover circles. Rumors that a deal is brewing are buoying Upjohn's shares on heavy volume—the third time since June. The stock, which dived from a high of 44½ in July to 35 in October, has been on the rebound and is now trading at 39¼. Investors are well aware that SmithKline Beckman, Squibb, Rorer, and Marion Labs have all been acquired by or merged with larger drug companies over the past two years.

The latest word? Members of the Upjohn family, headed by board member Bill Parfet, control some 10% of the stock, and they're said to be urging management to sell or solicit a strategic alliance with a foreign company. Talk is that an informal $50-a-share offer from Glaxo, the large British drug manufacturer, was recently rejected. The latest suitor, according to a New York takeover investor, is Hoechst, the giant German chemical and drug conglomerate. It's rumored to be on the lookout for a second major U. S. acquisition. (It bought Celanese in 1987.)

The big stumbling block to any deal, according to one New York money manager, is the Upjohn family's insistence that corporate headquarters remain in Kalamazoo, Mich., and that there be a guarantee of no severe cost-cutting or major layoffs.

Analysts put Upjohn's takeover value at $50 to $60 a share. Barbara Ryan of Prudential-Bache Securities believes the company will have to seek a strategic alliance, in part because it is not dependent on a maturing product line and has no new drugs in the pipeline to maintain earnings. "Our best assessment is that Upjohn is unlikely to remain independent," she says.

If an international company merges with Upjohn, the suitor would pick up a strong U. S. distribution network. And Ryan notes that Upjohn could still maintain its deeply rooted corporate culture, which includes extensive involvement in the community. A company spokesperson declined comment.

CASTLE & COOKE MAY SELL ITS CROWN

David Murdock has kept everyone guessing about the direction of the restructuring he's pursuing at Castle & Cooke, where he's chairman and chief executive. In recent weeks, shares of the worldwide grower and processor of fresh fruit, including pineapples and bananas under the Dole label, have moved up from 26 to 32¾.

Why the jump? Speculation is high that Murdock is on the verge of finally selling the Dole Food unit. In July, he retained Goldman Sachs to evaluate how much Dole could be sold for and to help find buyers. According to a California investment banker, Chiquita Brands International, formerly United Brands, has offered $36 a share for the Dole operations, which had 1989 sales of some $2.5 billion. But Procter & Gamble is believed to have put in an even higher bid.

The competing offers may result in a battle not only for Dole but for all of Castle & Cooke, says the investment banker. One takeover analyst puts the breakup value of Castle & Cooke at $50 to $60 a share. In addition to Dole, the company owns real estate in Hawaii and operates residential, resort, and commercial projects in Hawaii, California, and Arizona. Last year, Castle & Cooke earnings were $1.60 a share. They're expected to hit $2.10 this year and $2.60 in 1991.

A spokeswoman for Castle & Cooke declined comment and spokespersons for P&G and Chiquita weren't available.

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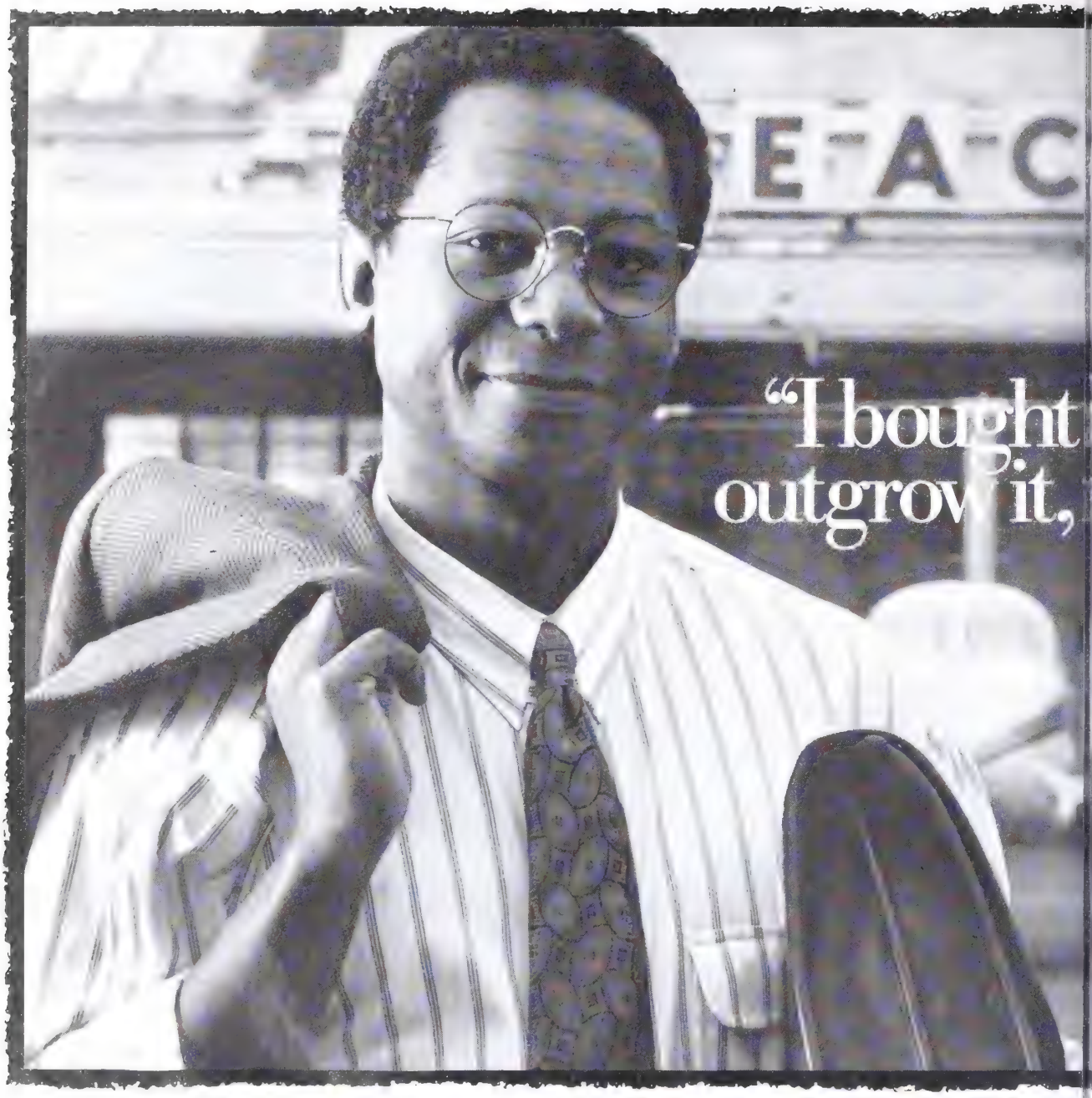

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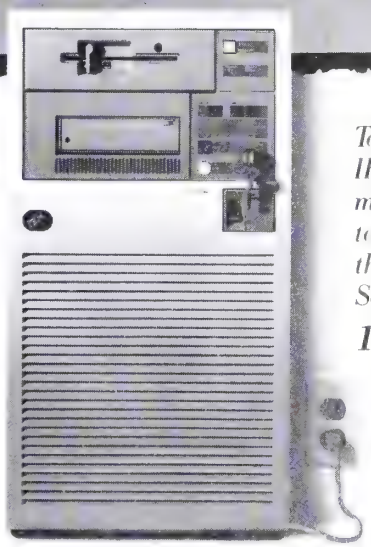

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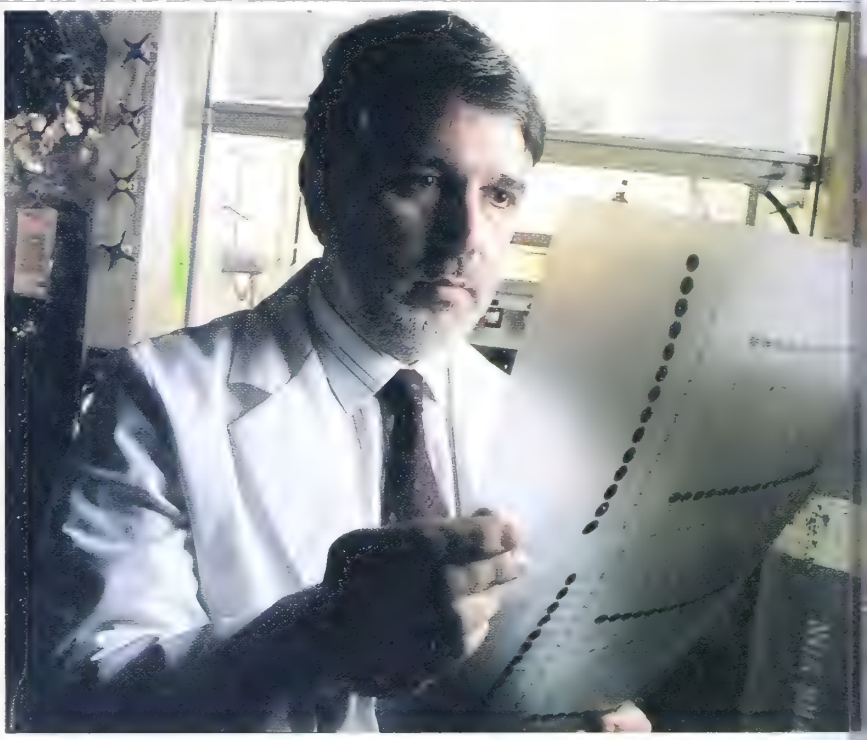
CAN THE 'ABORTION PILL' SAVE LIVES?

RU486 may fight cancer, but U.S. researchers may not get to te



THE NIH'S CHROUSOS "WORRIES" ABOUT GETTING ENOUGH RU486 TO KEEP HIS STUDIES GO

To Dr. William Regelson, RU486 is a "major medical breakthrough." The Medical College of Virginia oncologist says the drug may offer treatments for brain and breast cancers, diabetes, obesity, and more. There's just one catch: RU486 is also the so-called abortion pill that more than 65,000 women in France have used as an alternative to surgery. And abortion foes see approval of the drug for any medical use in the U.S.—and its subsequent wide distribution—as inevitably leading to more abortions. Their opposition has made French manufacturer Roussel Uclaf so wary that it is limiting supplies of RU486 to only a handful of the American scientists who want to study its effects. "There are many investigators who want to study the drug and can't get it," says Gary D. Hodgen, president of the Jones Institute for Reproductive Medicine in Norfolk, Va.

That has added another layer of controversy to an already bitter dispute. Some scientists even charge that the French drugmaker is withholding compound in a shrewd attemp change its image as a "death drug." idea, this theory goes, is to get doc and cancer patients to raise a cla over RU486's potential benefits. the company, with a Gallic shrug, tell antiabortion protesters that it forced to distribute the drug. "We being manipulated by Roussel," says gelson. "They want a groundswe doctors who will run interference them."

'TRAGEDY.' It was such outside pres that made RU486 available in the place. In September, 1988, a month the drug received French approva was withdrawn after Roussel an German parent, Hoechst, were th ened with boycotts of their prod Only a government order put R back on the market. But sugges that Roussel is limiting the suppl researchers to force the same thin happen in the U.S. are "totally cr scoffs André Ulmann, the company

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rector of clinical research. Ariel Mouttet, the marketing director for RU486, adds that Roussel is merely being "very, very conscious of to whom we give" the drug to avoid its "misuse."

Whatever the company's motives, its tight hold on the drug has sparked an unusual campaign of superlatives. On Nov. 19, pro-choice Representative Ron Wyden (D-Ore.) held hearings featuring scientists who are studying RU486 and patients who have used it. Wyden's goal: to bash the Food & Drug Administration for banning imports for private "compassionate" use—which it often allows for experimental drugs. "It would be a tragedy to deny cures to Americans with life-threatening diseases because of an ideological agenda," says Wyden.

As part of the pro-RU486 effort, Regelson recently published a glowing review of the drug's potential in the influential *Journal of the American Medical Association*. And groups such as the New York-based Cancer Patients Action Alliance say they will lobby for more research on RU486's effect on breast cancer, similar to large-scale studies being planned in Europe. These moves are "a very effective strategy," says Arthur L. Caplan, director of the Center for Biomedical Ethics at the University of Minnesota. They "force the issue of whether we will allow people with terminal diseases, most of them women, to die to protect the lives of the fetuses who probably will be aborted anyway."

The drug causes abortions by blocking the action of certain hormones. One of these hormones, progesterone, stimulates the uterus to nurture a fertilized egg. In a pregnant woman, RU486 turns off this signal, which causes the uterus to shed the embryo. Scientists think the same hormone-blocking effects might be harnessed to combat certain diseases and disorders. Tumors in both breast cancer and meningioma, a form of brain cancer, are also stimulated by progesterone, so treating them with RU486 might help fight those cancers. In studies at the University of Southern California, for instance, the drug stopped the spread of brain cancer in 9 of 27 patients with inoperable tumors. And in French trials, 4 of 22 breast cancer patients who didn't respond to other treatments saw their tumors regress.

MORE THAN AN ABORTION DRUG

Because of its hormone-blocking properties, RU486 could be used to fight other conditions, including:

- CUSHING'S SYNDROME
- BREAST CANCER
- MENINGIOMA
  A type of brain cancer
- ENDOMETRIOSIS
  A common cause of infertility
- OBESITY

DATA BW

The drug could fight other ills as Dr. George P. Chrousos, an endocrinologist at the National Institutes of He "worries" about getting enough RU to keep his experiments going. He's ing the drug to treat Cushing's drome, in which abnormal hormone els cause obesity, depression, diabe and hypertension. Cushing's syndr strikes just 1,000 Americans a year. Regelson believes that it mimics greatly accelerated fashion, many pects of the aging process. He is p ing RU486 as a potential treatment obesity, hypertension, and even agi

TOO EARLY TO TELL. That kind of infuriates pro-lifers. "It's unethica use human misery to motivate pe into lobbying for the drug," cha Richard D. Glasow, education direct the National Right to Life Commi Glasow and other abortion foes a that the therapeutic potential of drug has been hyp

Many scientists he's partly right. So animal studies bac the idea that RU might work for a range of ailments. that's a long way a medical "br through." For C ing's syndrome, haven't seen any dence that it's b than the current we use," says end nologist Dr. Donal Holub at New Y Columbia Presbyte Hospital. Only a h ful of patients with cer and endometri an often painful growth of tissue in and around the us, have been helped by the dru small trials. And the USC results on b cancer are still preliminary. "We have any great claims for the dr says neurosurgeon Dr. Martin W Without the abortion controversy, cludes Caplan, "RU486 would be jus other interesting substance. It wou be in the headlines."

That's why many researchers w like to see it sheltered from abo politics. If supplies of RU486 we limited, scientists could finally deter whether the drug is a therapeutic as well as an abortion agent. And turns out that it works against a dis such as breast cancer, which kills 4 women in the U. S. annually, the de over whether to withhold it might n much of a debate at all.

By John Carey in Washington, with athan B. Levine in Paris

evelopments to Watch

:D BY WILLIAM D. MARBACH

W, AN INFRARED CAMERA TH CORRECTED VISION

Video cameras that can "see" in pitch darkness have long been standard fare in spy movies. In real life, they are imperfect: The images are usually blurry and jerky, and the cost is astronomical. Now, Japan's Electrotechnical Laboratory (ETL), a research arm of the Ministry of International Trade & Industry, has unveiled a prototype see-e-dark video camera with a fivefold gain in image quality. aditional infrared cameras use a single photo diode that es variations in heat waves from living creatures and mate objects. ETL researchers employ an array of 128 red sensors, made from the semiconductor compound indi-ntimonide and cooled in liquid nitrogen. This array is far sensitive than a single detector. Researchers expect the eras will be used for everything from crime prevention to l exploration for minerals. But they still won't be cheap: ETL estimates that the cameras will cost about $40,000 and ld be available within a year.

N THIS U.S.-EC SCIENCE COMMITTEE SE ABOVE POLITICS?

ou would think the last thing the U. S. needs is another science-and-technology agreement with Europe. Already e are 117 bilateral research programs and many U. S.-pean scientific oversight groups. Still, White House sci- adviser D. Allan Bromley and Filippo Maria Pandolfi, the pean Community's research czar, recently agreed to form Joint Consultative Group on Science & Technology.

ie group is supposed to coordinate public research, leaving e and regulation to other bodies. But the first task force, iotechnology, has already stepped into a controversy, by osing to coordinate rules for releasing bioengineered sub-ces into the environment. That's an explosive issue the EC f hasn't decided how to handle.

me insiders fear the group may get entangled in such ics. If the JCGST avoids that, it may usher in a new era in h the EC and the U. S. share more of the costs of "big nce" projects in genetics, high-energy physics, and fusion.

CROGEARS THAT MIGHT LAUNCH REAL *FANTASTIC VOYAGE*

ow many gears can spin on the head of a pin? Thanks to Henry Guckel of the University of Wisconsin, we now w the answer is hundreds. The electrical engineer has aged to make the world's smallest metal gears—a scant nicrons in size—and to assemble them into tiny gearboxes. he's in the final stages of fashioning a tiny metal motor urn the gears, opening the door to everything from minia- robots to microscopic gyroscopes.

cientists have already made tiny gears and motors out of silicon, but these suffer from excessive friction and are very difficult to handle. So Guckel turned to metal. He creates a miniature mold by exposing a stencil-covered material with X rays, then dissolving away the uncovered area. Next he electroplates nickel or gold into the form. The metal parts are thick enough to be assembled like a miniature Lego set, Guckel says. High on the list of applications is a miniature motor-powered knife that could be guided into the body for extremely precise surgery.

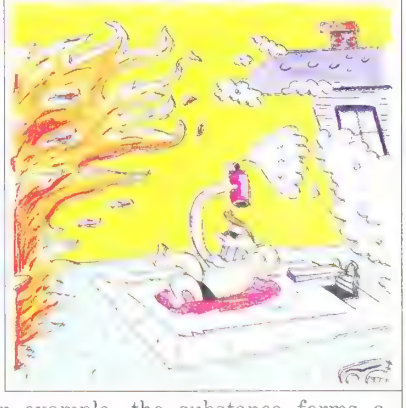
ONE OF THESE MULTIVITAMINS MAY BE WORTH A POUND OF CURE

Take your vitamins. For years, nutritionists, some physicians, and others have extolled the role of vitamins and other supplements in disease prevention. Now, for the first time, a major cancer research institution—the University of Texas' M. D. Anderson Cancer Center at Houston—has formulated a multivitamin preparation that might help fend off cancer, heart disease, and even some effects of aging. The supplement, called ONDROX, is manufactured by LifeScience Corp., a company set up in Austin, Tex., to commercialize the innovations of UT researchers.

The 45 ingredients in ONDROX include a full range of vitamins and minerals such as selenium. Also, there are cholesterol-reducing substances and "antioxidants," which are intended to counteract cell-damaging substances known as free radicals. Instead of megadoses, the ONDROX capsule slowly releases small quantities of the formulation over eight hours.

Although the formula is based on research evidence, Thomas J. Slaga, who heads the Anderson Center's Science Park institute and developed ONDROX, says there is no proof that it can prevent cancer or any other disease in healthy humans. Moreover, he expects the formula to change as new research develops. ONDROX will be available in the spring of 1991, and a month's supply of vitamins will sell for about $15.

SMOKEY THE BEAR COULD GET A BIG BREAK



The scene is all too familiar: As brushfire sweeps through a tinder-dry canyon, residents flee, unable to save their homes and belongings. Soon, there may be an alternative. Inventor Ival O. Salyer, a senior research scientist at the University of Dayton Research Institute in Ohio, has developed a new fire-fighting material. When sprayed onto the roof of a house, for example, the substance forms a protective foam that provides a thermal insulating barrier. And the residue can be washed away harmlessly with water.

Salyer developed the material—which contains monoammonium phosphates, sugar, urea, and a blowing agent—under contracts from the U. S. Navy and U. S. Air Force. These low-cost chemicals can be dispensed through a conventional fire extinguisher. Salyer says the materials could also be used instead of phosphate powders to quell forest fires. And he envisions a use aboard NASA's space station. Several companies are negotiating to commercialize such products.

The Global Economy

CAN YOU

ILLUSTRATIONS BY NICKOLAI PUNIN

COMPETE?

How Americans are falling behind, and what can be done to pick up the pace

DOWN, BUT NOT OUT
The U. S. is stumbling. And finding its footing in the fierce global market won't be any cakewalk. *page 62*

WHERE YOU STAND
To zero in on troubled industries—and spot the bright ones—you must discard comforting myths. *page 66*

A NEW VIEW OF THE ECONOMY
Measuring how America really stacks up meant building a better yardstick. *page 70*

SHARPENING SKILLS
New efforts include everything from management reform to remedial work in the three Rs. *page 72*

WORKING FOR A FOREIGN BOSS
U. S. employees—especially white collars—find the culture clash can be a career-killer. *page 80*

TATTERED SOCIAL CONTRACTS
Low investment in human capital is one reason the U. S. is losing the competitiveness race. *page 88*

WHAT WE CAN DO
For many Americans, inroads by overseas rivals have been somebody else's problem. No longer. *page 92*

YES, WE'RE DOWN. NO, WE'RE NOT OUT.

We shall be as a city upon a hill, the eyes of all people are upon us... we shall be made a story and a by-word through the world.

—John Winthrop, addressing the Puritans sailing for the Massachusetts Bay Colony in 1630

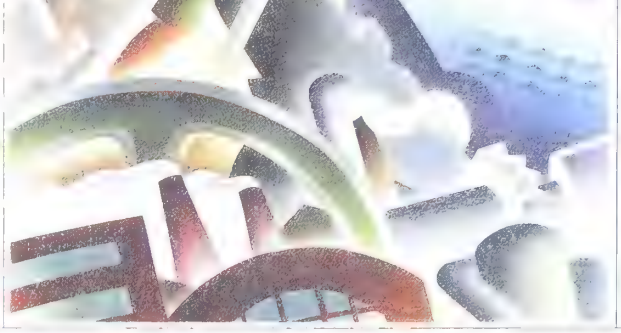
Special. Unique. Exceptional. Shimmering in the distance, a beacon and an example. For nearly four centuries, that's how Americans have viewed America and its place in the world. They believed it to be so, and they made it so. No matter how idealized a vision—and history has surely shown it to be—that shining image has inspired generations of settlers and immigrants in search of freedom, democracy, and prosperity. Strive harder, work better, and the effort will bring its own rewards—including the knowledge that what you have achieved is viewed with envy and admiration.

Today, there seems less and less for others to admire. The nations of Eastern Europe may be experimenting with democracy, and the crumbling Soviet empire may be considering free markets, but the triumph of American values seems bittersweet indeed at home. It's not just that the first nationwide recession in nearly a decade is looming, although that certainly has people worried. There is, rather, a deep-seated feeling that America's global stature has been sharply eroded and that the competition is tougher than ever. "Americans are worried that we're going to be No. 3, after Japan and Germany," says pollster Louis Harris. "That's a bitter pill to swallow."

True, the U.S. remains the premier economic power, despite its indebtedness to the rest of the world, its trade and budget gaps, and its stark contrasts between rich and poor. In current dollars, its gross national product will total about $5.5 trillion for 1990, compared with about $2.8 trillion for Japan. On a per capita basis, after adjusting for differences in purchasing power, Japan's income amounts to about 75% of U.S. income. In absolute terms, the U.S. still leads the world in productivity.

'Americans are worried that we're going to be No. 3.... That's a bitter pill'

Success will come by embracing the world economy—not trying to escape it



But the rest of the world is gaining on us n no country quite so rapidly as Japan. From 19 1989, annual gains in output per hour aver 5.5% in Japan, compared with 2.6% in the . Strong increases in productivity fuel grow growth in output, incomes, and, ultimately, l standards. The issue for America isn't whet remains out front in the global race but whet can restore to its citizens a sense of well-being the promise of better times.

The loss of well-being is evident all ar Once-mighty metropolises struggle with dwin resources against crime, homelessness, and d Highways are neglected, and bridges are in pair. The educational system is producing and more functional illiterates. Congress an White House daily demonstrate a failure to Even Washington's decisive stance against seems inspired by something less than high-r ed motives—that is, by the blatant need to s a steady supply of oil, and even, Americans been told, the need to protect jobs.

REAL LOSSES. Above all, you can feel Amer eroding status in your bones—and in your check. Incomes have stagnated during the pa years, with most people earning as little as or than they once did, in inflation-adjusted terms, only a lucky minority gaining entrée to the u income reaches. Since 1973, median family in has barely grown in constant, or after-infla dollars. Worse yet, in the past decade, real w for most U.S. workers have been sliding. On a handful of industries have been v gains, and those have achieved by a smaller fracti the work force. The few in tries that shed workers revved up to export are d well, and productivity gains abled them to boost wages remaining employees. But in industries that have been e devastated by imports or sh ed from foreign competition gether, the trends have been worse. In the steel and indu al-machinery industries, for stance, real wages have f 5% to 7% over the past 10 y And in dozens of service in tries, such as retail trade construction, weekly earn have plummeted.

For much of the 1980s, creeping deterioration of li standards was masked—hi behind a tower of debt, in m

the same way as the blight of Atlantic City is hidden behind the glitz of such casinos as Donald Trump's Taj Mahal. Now, the facade of good times has been stripped away. Americans are beginning to come to terms with their changing circumstances. We have entered, says economist Paul R. Krugman of Massachusetts Institute of Technology, an "age of diminished expectations."

America simply isn't competitive with other nations. That doesn't merely mean, as it once did, that the Japanese make better and cheaper automobiles and that we buy them. In fact, thanks to a cheaper dollar and productivity gains, American exports have revived in recent years, and the trade deficit has narrowed. But competitiveness means not only being able to trade successfully in the world arena but also being able to maintain rising living standards at the same time. America hasn't accomplished that.

FALSE NOTION. In this Special Report, BUSINESS WEEK investigates how America's loss of competitiveness has impinged on Americans in all walks of life. By looking at labor market and wage data in a new way, we examine how individual workers are faring. Our analysis shows that all Americans are affected by trade and forever jettisons the notion that it is possible to hide from the global economy (page 66).

While that conclusion may seem gloomy, it's clear that there are lessons to be learned from it. So, BUSINESS WEEK tells you what kinds of training workers and managers should receive to be better prepared to compete (page 74). We tell you what it's like to work for a foreign corporation and why that might not be such a good thing (page 80). And we show that the productivity payoff from spending on American physical and social infrastructure can be even greater than from investing in plants and equipment (page 88).

BUSINESS WEEK's findings and conclusions may surprise you. There are no easy solutions to the competitive bind America is in, but there are solutions. And the key to economic well-being rests in adapting and exploiting the openness of the world economy—the very openness many are quick to blame for our loss of standing.

If Americans don't embrace the global market-place and become better and bigger participants in it, U.S. stature will only erode further. Around the world, nations are working to remove barriers to growth. Newly united Germany, after a few years of adjustment, is poised to be an economic giant. Western European nations are negotiating unprecedented integration in 1992. And in Eastern Europe, countries are testing economic as well as political freedom.

Japan, meanwhile, is hardly standing still. In Japan the bubble of sky-high stock and land prices is bursting, but industry and government are redoubling efforts to ensure strong economic performance. The Four Tigers—Taiwan, South Korea, Hong Kong, and Singapore—continue to challenge Japan. Meanwhile, new competitors such as Indonesia and Thailand are stirring.

Latin America, for all its problems, isn't dormant. Leaders are trying to hold inflation down while promoting growth. And while the Mexican government is seeking easier access to U.S. markets through a free-trade agreement, Mexican workers are assembling products for U.S. companies at one-tenth the wages Yankee workers earn. Only Africa poses little apparent challenge.

THEORETICAL TRUISMS. To pick up its own pace, America has to get more out of the three building blocks of growth: labor, capital, and technology. Economists teach that the supply of labor is relatively fixed, the supply of capital depends heavily on investment rates, and the supply of technology is unpredictable. Yet these theoretical truisms don't acknowledge that the single most important determinant of economic growth is people. General Motors Corp.'s joint venture with Toyota Motor Corp. achieved huge increases in labor productivity, largely by changing how work is organized. On the other hand, Corporate America has poured billions into capital investment in computers, but most employees don't get as much as they could out of the machines. America has no shortage of scientists and inventions, but it stumbles in getting innovations from the lab to the factory floor quickly and efficiently—a task that depends on a highly skilled cadre of people.

The good life has become an impossible dream for many Americans—we're living in an 'age of diminished expectations'

For decades, Americans showed the rest of the world how to be more productive, and now the rest of the world is showing us. Can the U.S. learn from its students? In the late 19th century, Britain failed to adopt new technologies developed elsewhere and so began a slow slide into industrial decrepitude. That doesn't have to happen here.

There are signs of change in the export-oriented industries, where lower costs and stronger sales have given workers a payoff. Enlightened managers are adopting new training programs for employees. And some U.S. companies are trying to meet the child care and health care standards set by their competitors overseas. But the fact remains that, for most of its citizens, America's integration into the global economy in the 1980s was a difficult process. And the next decade promises to be one of continuing adjustment, sometimes painful. Unless America does a better job in competing in the 1990s than it did in the 1980s, more and more people will find their standard of living getting worse. That includes you.

By Karen Pennar in New York

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DISPELLING THE MYTHS THAT ARE HOLDING US BACK

Most horror films have sequels, and this one is no exception. In the 1980s, millions of Rust Belt workers watched helplessly as imports took their jobs and their futures, leaving them only unwanted skills and wrecked communities.

Now, it's everyone else's turn. From the drugstore clerk to the high-paid banker, America's competitive failures are hurting almost everybody. The damage is not as obvious as a shuttered factory, but it's real: smaller paychecks, fewer good jobs, and a hungrier and meaner future.

Americans want to believe their trade agonies are over. But BUSINESS WEEK's new analysis of how foreign trade affects all sectors of the economy shows that no one is safe. Competing in world markets requires hard truths rather than comforting myths. Here's how the global economy will affect Americans in the 1990s.

MYTH: *American workers have become productive members of the global economy.*

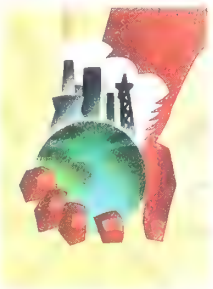
REALITY: *Some have, but the share of the work force in the exporting sector is small—and shrinking.*

Hospital Staffing Services Inc. (HSS) is one of the country's newest exporters—with a twist. Since July, the Fort Lauderdale (Fla.) personnel agency has been supplying trained American nurses to British hospitals. The hospitals are pleased, the nurses enthusiastic, and the company's president, Leonard J. Cass, is eyeing the rest of Europe and the Far East. "We see a world of opportunities internationally," says Cass.

Success stories such as this one are heartwarming but misleading. A company such as HSS may place a handful of nurses abroad, but it still depends on the U. S. market for almost all its business—and that's typical. Only a small number of U. S. industries ship a significant fraction of their output overseas (chart, opposite page, and box, page 70). The exporting sector is still mostly composed of high-profile stalwarts such as aircraft, business services, chemicals, and computers. And for all the fuss about the U. S. becoming more export-oriented, hardly any additional industries have joined the exporting sector in the past 10 years.

Moreover, success overseas is not translating into job creation at home. In recent years, it's been harder to find a job in the exporting sector than in the rest of the economy. Boeing—the country's top exporter—has cut its work force by about 3,000 this year, even though orders for commercial aircraft may exceed last year's record. And even before the recent round of layoffs, employment in the computer industry had dropped by 5% since 1986. Indeed, the exporting sector now employs only one-eighth of the work force—and this share is eroding (c

Americans believe they can find shelter from foreign competition. They're wrong



The reason? Although many exporters have e expanding output and sales, they're also boo productivity by shedding jobs and substituting a tal for labor. And successful industries have e spinning off production to smaller suppliers, c at home or abroad, to take advantage of l wages.

These trends show no sign of abating. Using ernment employment forecasts, BUSINESS WE projecting an increase of 9.6% in the size o exporting sector over the next 10 years, far less projected national employment growth of 1 True, the exporting sector could expand fas import-competing industries such as machine and autos regain market share in the U. S.—r some domestic industries learn how to be big e ers. Barring these competitive gains, the propo of Americans producing for world markets wil continue to shrink in the 1990s.

MYTH: *Foreign trade lifts everyone's stand of living.*

REALITY: *Only workers in the exporting se are winners from the global economy.*

The accounting and consulting firm Arthur A sen & Co. is a strong advocate for liberalizing t national trade in services, and no wonder. Last e revenues from overseas offices climbed by 4 much faster than the 14% growth of U. S. reve And the almost 1,000 non-U. S. partners share s such as the expense of running Andersen's 14-a in-house training facility, located near Ch "From the standpoint of the U. S. partners," sa Lawrence A. Weinbach, Arthur Andersen's ma ing partner and chief executive, "[internation pansion] was an outstanding thing to do."

But most people have reason to regard the gl economy with dismay. Hurt by the direct and in rect effects of foreign competition, real earn outside the exporting sector have dropped b since 1980. And import competition is still ke wage gains well below the rate of inflation in tries such as industrial machinery and machine o despite their recent revival.

By comparison, foreign trade has boosted th ing standards of Americans smart or lucky en to hold jobs in the exporting sector. There, av real wages have risen by 5.2% since 1980, acco to BUSINESS WEEK calculations. Some did muc ter. Employees in industries such as comp chemicals, and accounting services saw their standard increase by 7% to 10% in the 1980s, be the national averages by a mile. "What's dr wages is world market growth and competitive s says James K. Galbraith, a University of Texas c omist. "Export success means rising wages."

The benefits from export success are showi

WHERE YOU STAND IN TODAY'S ECONOMY

IF YOU WORK IN THE EXPORTING SECTOR...

- Aircraft
- Chemicals
- Computers
- Drugs
- Electronic equipment and components
- Instruments
- Lumber and paper products
- Business services* such as accounting and consulting
- Financial services*
- Higher education
- International communications and transportation
- Movie-making and other entertainment

IF YOU'RE IN AN INDUSTRY HURT BY IMPORTS...

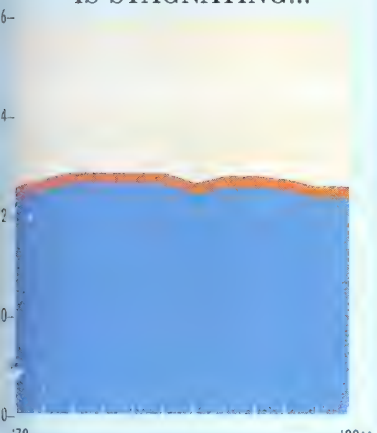
- Autos and motorcycles
- Cement
- Clothing
- Consumer electronics
- Furniture
- Machine tools
- Mining
- Most industrial machinery
- Screws, nuts, and other metal products
- Shoes and luggage
- Steel, aluminum, and other metals
- Tires
- Toys and jewelry

*These industries have employees in both export and domestic sectors

IF YOUR JOB IS IN THE DOMESTIC SECTOR...

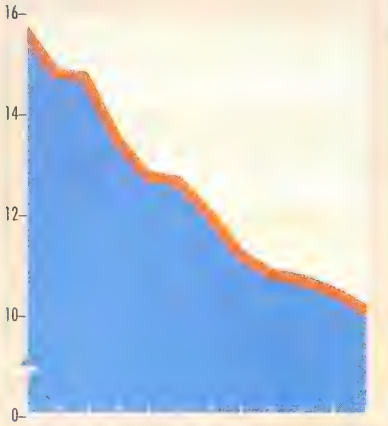
- Commercial printing
- Concrete products
- Food processing
- Publishing
- Rubber and plastic products
- Business services*
- Construction
- Domestic transportation and communication
- Financial services, real estate, and insurance*
- Health services
- Education*
- Personal services, such as beauty parlors and auto repair
- Wholesale and retail trade

...EMPLOYMENT IS STAGNATING...



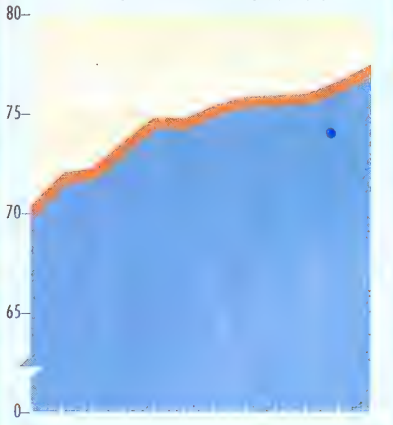
▲ PERCENT OF PRIVATE NONAGRICULTURAL EMPLOYMENT

...JOBS ARE BECOMING SCARCER...



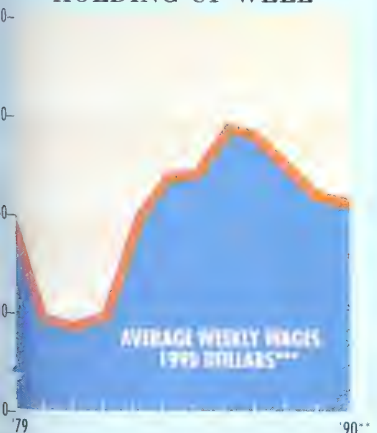
▲ PERCENT OF PRIVATE NONAGRICULTURAL EMPLOYMENT

...IT'S EASY TO FIND WORK...



▲ PERCENT OF PRIVATE NONAGRICULTURAL EMPLOYMENT

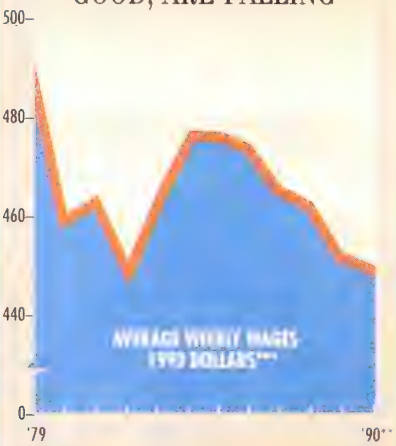
...BUT PAY IS HOLDING UP WELL



▲ DOLLARS

**AS OF JUNE '90
***PRODUCTION AND NONSUPERVISORY WORKERS

...AND WAGES, ONCE GOOD, ARE FALLING



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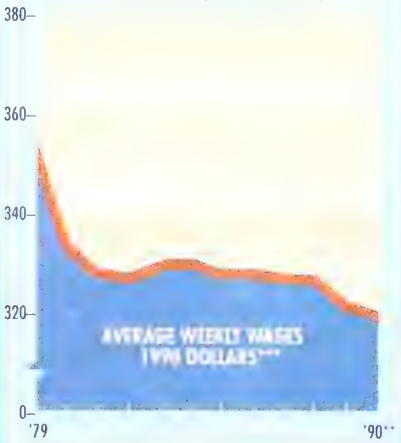
***PRODUCTION AND NONSUPERVISORY WORKERS

...BUT PAY IS LOW AND GETTING LOWER



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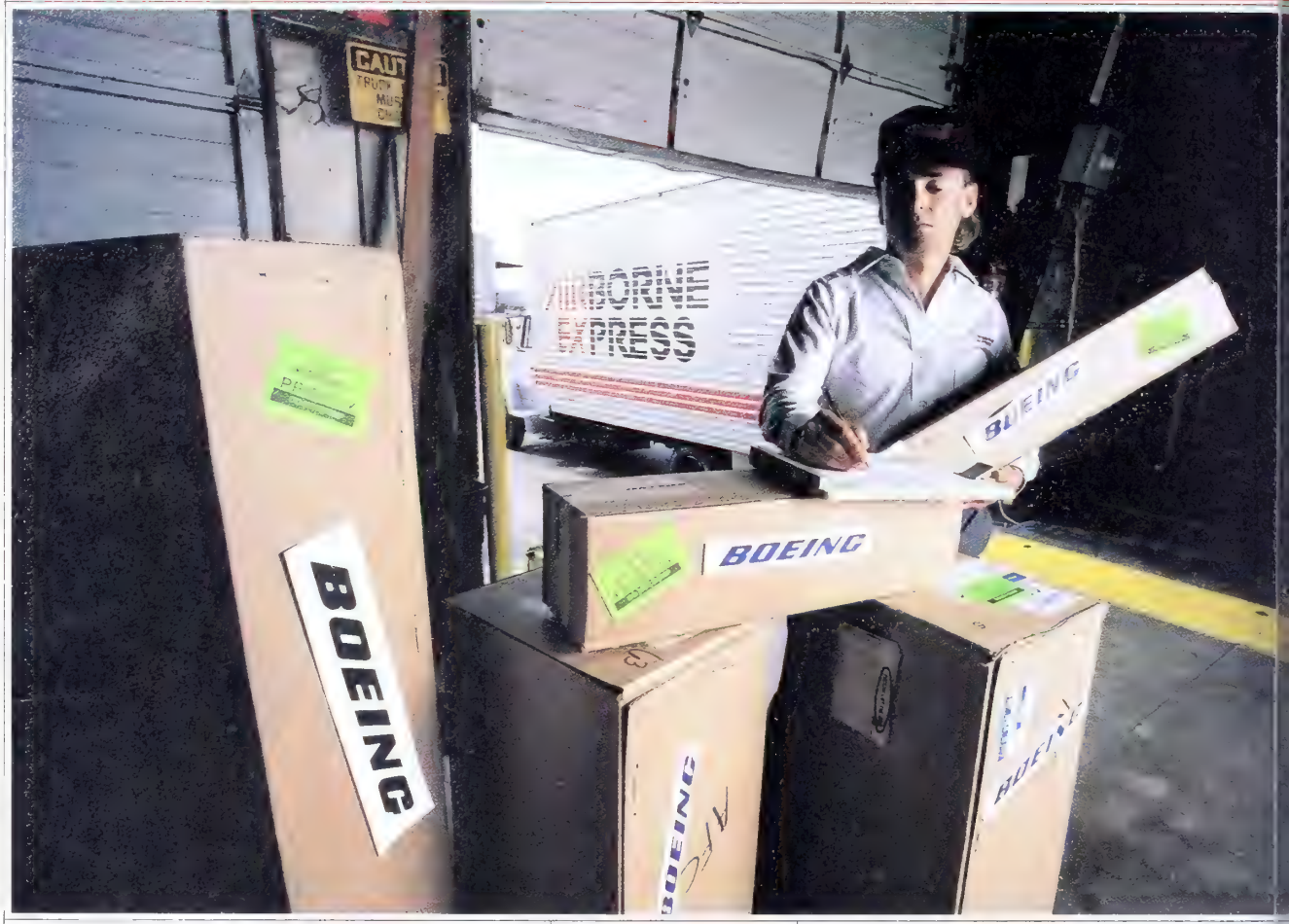
**AS OF JUNE '90
***PRODUCTION AND NONSUPERVISORY WORKERS



in surprising places—for example, college campuses. Education exports—mostly tuition and room and board paid by foreign students—now total about $5 billion a year. That's why the exporting sector includes part of higher education, even though the service never crosses the U. S. border. Indeed, foreign students have provided more than 20% of the increase in total college and graduate enrollment since 1985, and foreign graduate students now fill the nation's doctoral programs. This worldwide demand for a U. S. education has helped pay for the 17% increase in real earnings received by college instructors since 1983.

The global market for U. S. movies and television programs is also boosting pay in the entertainment industry. Foreign revenues accounted for about 42% of the $12.5 billion raked in by the film industry last year, and workers are sharing in the gains. For example, under the Writers Guild contract, feature-film screenwriters get royalties on sales to overseas television and on foreign videocassette sales—a market that has more than doubled since 1985.

Companies that compete well abroad may even be able to protect their workers from the looming U. S. recession. At Boeing Co., domestic orders for commercial aircraft have plunged so far this year, but foreign orders are up by more than $3.6 billion. This success is helping Boeing afford the 1989 labor settlement that granted generous wage increases to its unionized employees. And the good times have spilled over to suppliers such as Seattle-based Airborne Express, which handles international air cargo—mainly spare parts and voluminous tech manuals—for Boeing. Thanks to Boeing's or Airborne has added five new trucks and doubl international staff in Seattle since last year.

MYTH: *You can hide from the global econ*
REALITY: *Global competition is pushing wages, even in domestic industries.*

Foreign competition is a distant echo for retail salesclerks. Unlike assembly-line workers probably won't be elbowed aside by imports. E a Japanese or German-owned store opened up a the street, it would still need U. S. workers.

But for these apparently insulated workers, ica's trade troubles mean more competition for The import-competing sector lost 1.7 million jo the 1980s, while exporting industries, facing foreign competition, could not fill the gap. means that most new entrants into the labor m are forced to shoehorn themselves into a job domestic industry, such as retailing or constru

People who lack a college degree are bein especially hard as the U. S. increasingly com internationally on the basis of its skilled wo According to calculations done for BUSINESS by the Center for Regional Economic Issu Cleveland, 26% of workers in the export secto have college degrees, vs. 16% in the import-co ing sector. "When U. S. manufacturers get b by foreign competition, well-paid jobs for wo without college degrees disappear," says Law F. Katz, a Harvard University economist.

A large pool of less-skilled labor has produ

BRIGHT SPOTS

Soaring foreign orders at Boeing are a boon for Airborne Express, which handles the jetmaker's international cargo. And U. S. movies and TV shows are hits around the world

p decline in the es of workers in domestic sector. earnings there dropped almost e as much as ings in the seem- more vulnerable rt-competing sec- (chart, page 67). ed, the biggest e loser of the s was retailing, a estic industry, re real earnings nonsupervisory kers fell by 13%. r the same rea- some manufac- g industries that insulated from ign competition also paying lower wages. For instance, in the ing industry, which faces almost no import com- ion, a proliferation of small print shops has add- 05,000 production jobs to the industry since 1980, t 29% increase. But average real wages fell by during that time.

bor-force growth will slow in the 1990s, which ease downward pressure on wages. But the -term trend favoring skilled labor is likely to inue. "As more industries open up to the global ket, it will be harder for unskilled American kers to compete," says Clifford Johnson, an econ- t at the Children's Defense Fund. "This doesn't well for dropouts or even for non-college-grads don't get specialized training."

H: *White-collar workers are safe from inter- ional competition.*

ITY: *The global economy spares no one.*

ark D. Wolf, a 36-year-old market researcher for ge New Jersey insurance company, is no strang- o the global economy. In previous jobs, he's ed bid for a West German cellular telephone se and was squeezed out by cutbacks at a Briti- wned advertising agen- Now, he's working in an stry in which imports not yet a big presence. that doesn't make him safe from foreign com- ors. "They're coming," ies Wolf.

hat's a new fear for e-collar workers, who felt protected from the ges of international petition. In the 1980s, agers and professionals pered no matter which of the economy they ked in. Import-compet- industries such as min- and industrial machin- continued to boost their loyment of college grad- s, even as they were g off production work- The financial services n provided jobs for

TROUBLE SPOTS

Wages have fallen steadily for blue-collar workers in the U. S.—even in industries such as printing that have few foreign competitors

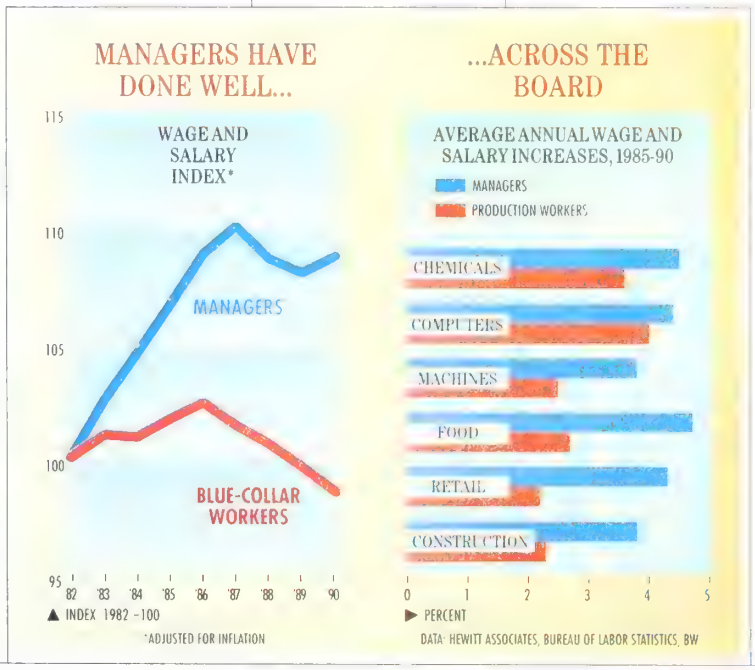
more than 700,000 college graduates. And the U. S. ran big trade surpluses in business services such as accounting, law, and management consulting. Not surprisingly, managerial salaries since 1982 have risen by 8.7%, adjusted for inflation, while blue-collar salaries have fallen by 1.5% (chart).

But now, high-flying white-collar workers are being hit by the same streamlining and productivity improvements that made other export industries competitive. There are fewer and fewer job opportunities at the big U. S.-based multinationals, which provide the highest-paying and most prestigious jobs. Since the early 1980s, multinationals have steadily reduced their U. S. employment, according to Commerce Dept. figures. Downsizing, spin-offs, and competitive pressures have taken their toll. Now, less than 20% of the work force is employed by a U. S.-based global company, down from 25% in 1982 (chart, page 70).

Of course, there are still some industries in which strong international growth is shielding white-collar workers from the recent wave of layoffs. For example, most drug companies are not paring back staff, responding in part to strong demand for their products in Europe and Japan. At Merck & Co., foreign sales account for about 46% of total revenue, which is partially insulating the company and its employees from U. S. economic woes.

But employees in banks, one of the main sources of white-collar growth in the 1980s, have no such protection. Few U. S. banks have the size and the muscle to compete actively in the global market for financial services. Since 1985, they've closed almost 100 foreign branches, reducing their overseas presence. This means that when the domestic economy slows, U. S. banks can't rely on foreign markets to pick up the slack.

And competitive problems in the computer industry are starting to hurt the engineers and other white-collar employees who make up much of its work force. Data General Corp. has announced plans for laying off 17% of its employees, and Digital Equipment Corp. is intending to pare 6% of its workers. At the same time, imports of computers and related equipment are soaring. So far in 1990, imports of office machinery—mostly



computers and parts—are up by 7.1% over last year, far outpacing office-machinery export growth of 3.4%.

And it could get worse. "We are witnessing a big decline in financial services and what might be the beginning of a steep decline in computers," says Stephen S. Cohen, director of the Berkeley Roundtable on the International Economy (BRIE). If this happens, college graduates will find good jobs getting scarcer in the 1990s, just as blue-collar workers did in the last decade.

MYTH: *Most Americans are going to prosper in the 1990s.*

REALITY: *Without changes, much of the decline in living standards is yet to come.*

Leaner and meaner, employing a smaller share of the work force, U. S. industry has staged a spectacular export boom over the past four years. The trade deficit, in real terms, has been sliced by more than 60% since 1986. Exports now make up almost 15% of the U. S. economy, up from 12% in 1980. And strong foreign demand for U. S. goods and services is keeping much of the Midwest and Northwest healthy amid the national slowdown.

But the overall volume of imports has continued to grow, and key industries such as machine tools, while showing near-record exports, have ceded almost half the domestic market to imports. Even if a recession narrows the trade deficit further by reducing demand for imports, a weak economy won't

U. S. manufacturers sell more goods at home.

And much of the price for declining competitiveness has yet to be paid. To be sure, average wages and salaries, in real terms, have only risen by a meager 3.7% since 1983. But even this dismal performance required massive borrowing from foreign and the sales of real estate and companies such MCA Inc. to finance the huge trade deficit—a diss tion of national wealth that can only make Am cans poorer in the long run. Robert Z. Lawrence economist at the Brookings Institution, estim that America's competitive troubles will eventu reduce living standards by about 3%, erasing mos the gains from the economic expansion of the 19

Moreover, other countries are turning in far be performances. Manufacturing wages in Japan Germany have risen by 18% and 14% in real te since 1980. And with a large portion of their w force in the exporting sector, those countries better prepared to benefit from trade in the fut

If Americans want this type of growth in li standards, they will need to compete better in global economy. It's not enough just to let a few exporters worry about world markets. These d the lack of competitiveness in the U. S. is ev body's problem.

By Michael J. Mandel and Aaron Bernstein in York, with bureau reports

A NEW WAY TO LOOK AT THE U.S. ECONOMY

Who are the winners or losers from foreign trade? Most economists can't answer this question. Although the U. S. imports and exports over $1.3 trillion in goods and services each year, government statistics on employment and wages ignore the rest of the world. They divide the nonfarm economy into manufacturing and services—providing little insight into how U. S. workers are being affected by the new realities of the world marketplace.

We need a new way of looking at the economy. For this Special Report, BUSINESS WEEK divided the work force into three sectors: exporting, import-competing, and domestic (chart, page 67). The exporting sector consists of industries that are competing effectively in markets at home and abroad. Import-competing industries are besieged by foreign competition in the U. S. And the domestic sector consists of businesses that are mostly insulated from the world economy.

BUSINESS WEEK found that it matters a great deal which of these three sectors you work in. For example, if you're employed in an exporting industry, then on average you earn higher wages and are more likely to be college-educated than someone working in either of the other two sectors. Moreover, you are well-placed to benefit from worldwide growth. Even if you personally are not producing a good or service for the world market, the competitiveness of your industry will affect your income and job opportunities.

In most cases, BUSINESS WEEK made its determinations by looking at export and import shares. An industry qualifies for inclusion in the exporting sector if it exports at least 10% of its output, and if imports in its domestic market take no more than 10% of that market. Such a combination means that employees have a stake in the global economy, but they do not face the threat of having their jobs displaced by foreign competition.

The usual statistics don't reveal how the world economy has affected U. S. workers

The exporting sector includes such high-tech industries as computers and sophisticated instruments, in which the U. S. still retains an advantage. And it includes service-sector industries that do substantial business with foreigners, either in the U. S. or abroad, even if government export statistics don't reflect this. Official export numbers for accounting services are fairly small, for example, but the large accounting firms are clearly global enterprises in which U. S. workers benefit from overseas offices—making them part of the exporting sector.

On the other hand, the import-competing sector contains a host of industries that have lost more than 10% of their home market to foreign produc These include automobile and machine-tool makers. Although they are still g exporters, import competition has been the key determinant of the well-being their workers in the '80s

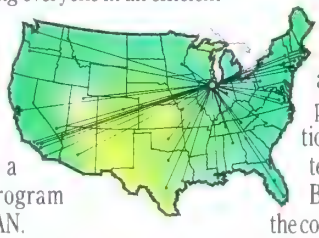
Finally, BUSINESS WE assigned those industr that do little exporting importing to the dome sector. Most of these are service in tries, such as retailing, in which i almost impossible to trade internat ally. It also includes almost 5 mil workers in manufacturing industr such as food processing, where l tastes and standards limit trade, d the making of concrete blocks, w are too bulky to be worth shipping

By Michael J. Mandel in New Y

How to eliminate phone tag, jet lag, courier haste, paper waste, faxing costs and messages lost.

You may want to memorize this little rhyme and recite it next time you're bogged down with paper work, phone calls, and overnight deliveries. Just think of all the time, money and aggravation you waste on information middlemen. Fortunately, Sears Business Centers has an easy solution.

We specialize in the installation of Local Area Networks. We can help your company communicate between floors or between cities by directly connecting everyone in an efficient PC network. And we can do it better than anybody else, because we offer you nationwide support and a comprehensive program called the Sears pLAN.



Our Sears pLAN covers four important phases of your Local Area Network development: planning, installation, operation and maintenance. We begin with an analysis of your company's current system. Then we review your plans for future growth and recommend a solution that will fit your unique business needs. We also configure and install your computers, so you can start being productive as soon as you turn them on.

And should you ever have questions or need service at any of your locations across the nation, we're just a toll-free phone call away. We'll answer your question over the phone or dispatch a service technician to your office. So let Sears Business Centers show you how to bypass the conventional means of communication. We guarantee you won't miss the tag, lag, haste, waste, cost or loss that goes along with them.

Now through January 31, 1991, Sears Business Centers is offering a special deal on the AT&T 6386SX/EL. When you buy the 6386SX/EL with a 40MB hard drive and VGA color monitor, you'll receive DOS 4.0, Microsoft Windows 3.0 and an AT&T Mouse FREE. This high-quality PC has an 80386SX™ microprocessor running at 16 MHz and comes with 2MB of RAM, expandable to 8MB. It also has the security of a keyboard locking password function. And, like all our PCs, it comes with the nationwide support of Sears Business Centers.

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SHARPENING MINDS FOR A COMPETITIVE EDGE

Everybody that works here is competitive. We're willing to work long hours. We want to be multiskilled and learn how we can make the product better so we can be the best in quality and service to the customer. And if we do all that, this plant will be around a long time.

—Robert A. Hubble, production worker, Corning Inc., Blacksburg, Va.

In the uncompetitive world of smokestack America, where autocratic bosses and jaded workers battle daily on the plant floor, Hubble would be considered a management stooge. But in the small yet expanding new world of automated plants and self-managing production teams, his enterprising spirit is common among blue-collar workers. With extensive on-the-job training, real involvement in decision-making, and good job security, Hubble and his co-workers have the right tools and incentives to produce high-quality automotive filters. In this budding industrial America, well-educated employees work in a setting designed to make people—not machinery—the competitive advantage.

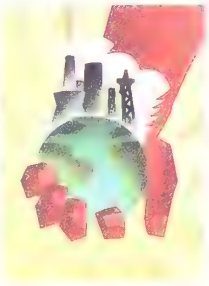
It is a powerful combination: workers who equip themselves to be competitive and employers who provide them with challenging jobs. But meshing these elements in a workable system is no easy thing. Managers must put aside dictatorial ways, give employees a voice in their jobs, and—most important—enable workers to develop new skills throughout their careers. Workers must get as much schooling as possible, demand broader duties on the job, and take on more responsibility for the company's success. Americans, in short, must revolutionize the way they organize, manage, and carry out work, or their jobs will disappear in the fast-paced global economy. But this new industrial America may not outlast its infancy unless the U.S. vastly improves public education and creates a national apprenticeship system.

What Corning did at Blacksburg points up the close link bet education, training, and work reforms. Ope the plant in 1989, the company decided to multiskilled, team-based production in tan with automation as a means of "challenging ple instead of forcing them to do dumb, s jobs," says Plant Manager Robert D. Hoover. ning sorted through 8,000 job applicants and 150 with the best problem-solving ability a willingness to work in a team setting. The m ity had finished at least one year of college. received extensive training in technical and personal skills; in the first year of production of all hours worked were devoted to training cost of about $750,000.

CONSTANT CHANGE. But this price was well w it. A Blacksburg team, made up of workers interchangeable skills, can retool a line to pro a different type of filter in only 10 minutes times faster than workers in a traditional plant. This is crucial for a plant that must stantly change product lines, and it's one re why Blacksburg turned a $2 million profit first eight months of production, instead of $2.3 million as projected for the startup pe Indeed, Blacksburg has performed so well Corning is moving to convert its 27 other fact to team-based production.

This means that Corning has chosen to co in world markets on the basis of a highly sk well-paid work force, rather than cutting wag

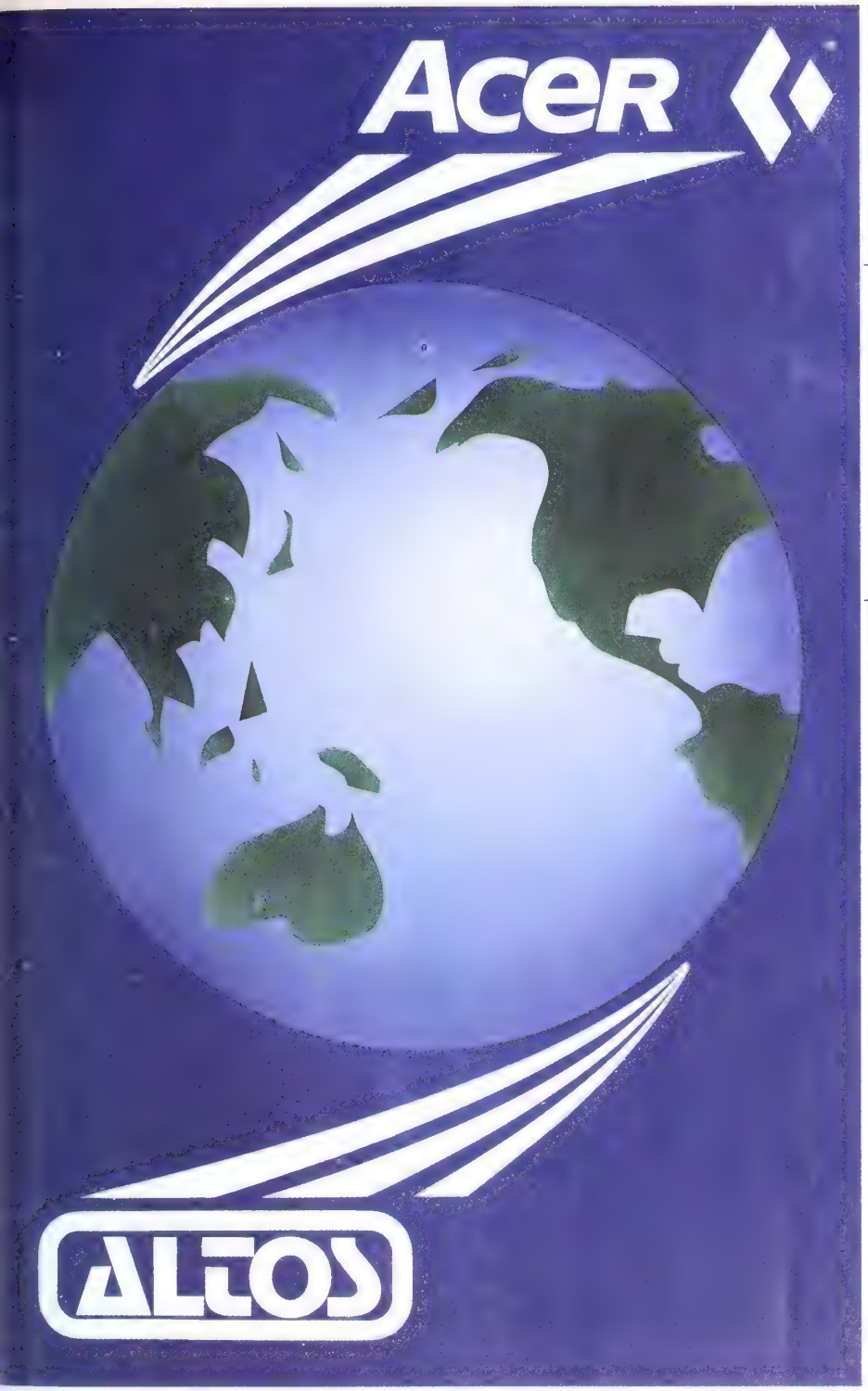
How extensive training and teamwork can boost production and morale



'I'm responsibl for my own job security'

ROBERT HUBBLE

Corning production worker



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farming out manufacturing to low-wage nations. But the companywide changeover will require a huge training commitment. Two-thirds of Corning's 20,000 employees are either weak or seriously deficient in reading and math comprehension and must receive remedial education along with job training. The goal is to devote 5% of all hours worked in 1991 to classroom training, up from 4% last year and far more than the 1% to 2% at most U. S. companies.

The cost will be enormous, but Corning has learned to view extensive training as an investment rather than a cost. The payoff is in improved product quality, productivity, and profits. Corning's return on equity jumped from 9.3% in 1984, when it began emphasizing employee training, to 15.9% in 1989. "In my gut, I can tell you a large part of our profit increase has come about because of our embarking on this way of life," says Chairman James R. Houghton.

HUNKERING DOWN. Too few American companies are operating on this gut feeling. And American workers who neglect education also will lose out. The statistics are persuasive: In the 1980s, on average, the earnings of college-educated males age 24 to 34 went up 10% after adjusting for inflation, while the incomes of men with only high school diplomas fell 9%. White-collar professionals now earn 37% more than skilled tradespeople; the gap was only 2% in 1975.

American workers also must learn to work in new ways. In the 1980s, they found that there can be no real job security in a world where companies can easily shift production from country to country in pursuit of low wages. In response, some workers and unions are hunkering down and refusing to give up traditional protections such as narrow job classifications. But others are accepting radically changed work practices to make their own plants and companies more competitive.

At Blacksburg, for example, employees put in a demanding 12½-hour shift, alternating three-day and four-day weeks. They make managerial decisions, impose discipline on fellow workers, and must learn three skill "modules"—or families of skills—within two years or lose their jobs. This is far different from the traditional U. S. manufacturing plant, where workers are placed in narrow jobs, must follow orders blindly, and are protected by union work rules. At Corning, the American Flint Glass Workers Union is cooperating in a companywide conversion to teamwork. It's jettisoning old work rules and supporting a work-force reduction by attrition. In return, Corning promises its employees greater job security for those who continue working.

'There's personal satisfaction in putting a quality product in the box and beating the Japanese'

DAVID MOORE
Corning electrical technician

While some union men are balking, many others that making the plants competitive coincides with sonal objectives, such as ga more involvement and gr job security. "We have a l responsibility, but that make feel good," Hubble says. "I give the customers what want, I feel secure in my job responsible for my own job rity in this environment." I Moore, an electrical techni graduated from West Virg Bluefield State College. He the Corning job instead of o an engineering firm. "I want to be a desk jockey, fo with blueprints all day," M says. "Here, I can be a han engineer. There's personal faction in putting a quality uct in the box and beating Japanese while doing it."

NO DRIFTERS. But the desi work must be translated work skills through educ and on-the-job training—and is America's Achilles' heel. experts agree that America' jor industrial competitors pan, West Germany, Sw and even tiny, up-and-comin tions such as Singapore—a vastly superior education systems and tra programs. American high school graduates much lower on reading, science, and mathem tests than youth in these other countries. U. S. is the only industrial nation that doe have a system for certifying the skills of school graduates and linking school with the place.

In contrast, many European nations have active labor-market programs to train and young people into the workplace. After fini compulsory school at the age of 15 or 16 majority of young people in Germany and Sw enter two- to four-year apprenticeships to pr for working life. One study showed that 59% employees in Germany in 1982 had grad from one of 380 apprenticeship programs. number was expected to rise to 65% by the 2000. Sweden begins orienting children to *a liv*, or "worklife," in first grade, through vis offices and factories. But they also receive ous courses in language, math, and science.

Japan doesn't have an apprenticeship sy but about 90% of all companies train newly workers in their own institutes or in govern sponsored schools. Training and orientation last for months, compared with a day or most U. S. companies. In America, young p not bound for college often drift from on paying job to another for years, many perma ly. Even if they get a relatively good job office or factory, they receive little training.

A recent report by Congress' Office of Te

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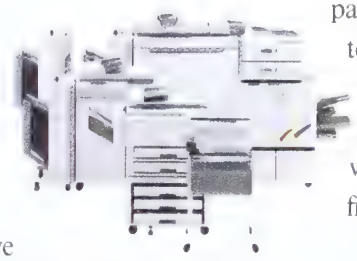

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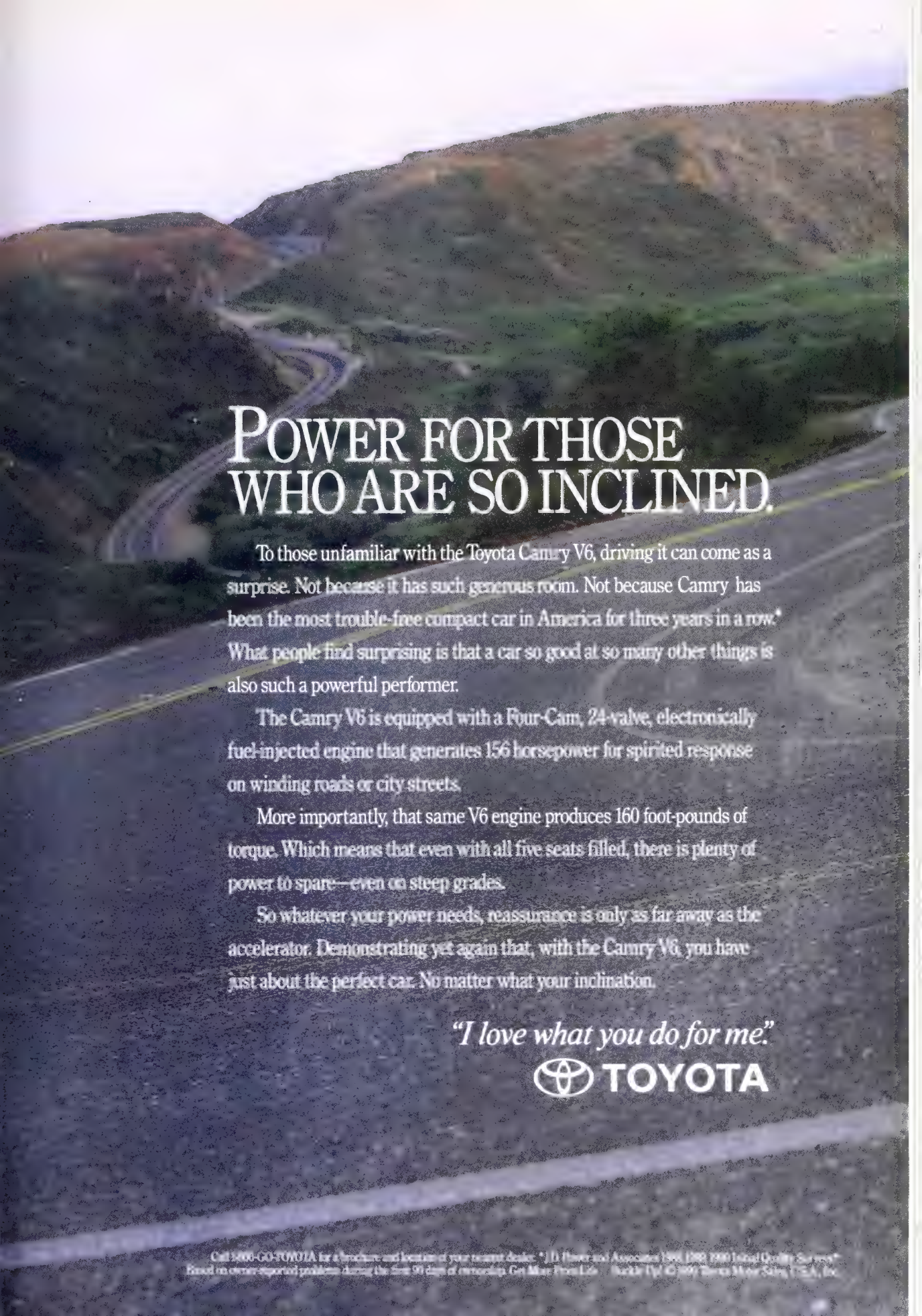
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To those unfamiliar with the Toyota Camry V6, driving it can come as a surprise. Not because it has such generous room. Not because Camry has been the most trouble-free compact car in America for three years in a row.* What people find surprising is that a car so good at so many other things is also such a powerful performer.
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ogy Assessment (OTA) estimates that U. S. companies spend $30 billion to $40 billion annually on training. But most of this money goes into programs for executives, salespeople, and technical workers. The OTA study says there are no credible comparisons of training expenditures among countries. But it shows that auto workers in Japan receive more than three times as much training each year as workers in American-owned assembly plants in the U. S.

Although business in general complains about the quality of high school graduates, most companies are not organizing work in a way that demands broad-based skills and the ability to learn. In addition to Corning, companies such as IBM, Motorola, Xerox, Ford, A. O. Smith, General Electric, Boeing, Kodak, Cummins, Polaroid, and Procter & Gamble operate some teamwork plants and do extensive training. The idea also has spread to banks, insurance companies, and other financial service businesses. The best example is Aid Association for Lutherans (AAL), a fraternal society headquartered in Appleton, Wis., which operates one of the nation's largest life-insurance businesses. It engages in extensive training of nearly 500 employees who process applications and claims.

'VERY HONEST.' Much of AAL's training focuses on helping the employees work together in self-managing teams. Team members such as Mary Vandehay, once confined to repetitive data-entry work on a computer, now enjoy more challenging jobs. "It's no longer coming to work and slugging data into a terminal," Vandehay says. "We have to work with each other. We can't pass problems up the line to managers. We have to be very honest and up-front with our co-workers."

But fewer than 10% of all U. S. employers have installed what the Commission on the Skills of the American Workforce, a private, nonpartisan group, called "high-performance work systems" at even one plant or office. The reason: Too few companies are willing to make radical organizational changes or sacrifice short-term gains for a long-term investment in worker training.

Corning decided to move in the new direction in the mid-1980s. Foreign competitors had gained access to manufacturing technologies that once were the source of Corning's strength—and could operate at lower costs. Houghton led a push to improve quality in the early 1980s and, in 1985, set up a top-level committee to find out how to make manufacturing more competitive. After a six-month study, the group concluded that merely improving inventory control and automating more wouldn't be enough. "We found that if you pay attention to the people aspects, such as powering workers to make decisions, you only get 50% of the potential benefit of restru ing," says Norman E. Garrity, a manufact expert recently promoted to executive vice- dent, who led the study.

The best way to empower employees, G decided, was to eliminate several tiers of m ers and install self-managing teams of wo who would receive extensive training. His c to test these concepts came in 1987, when Co decided to expand production of ceramic strates," the filters that serve as the core of lytic converters used in cars. Instead of expa an old filter plant at Erwin, N. Y., Garrity suaded the company to reopen a closed pla Blacksburg and start from scratch with a work force and "world-class" labor and man turing practices.

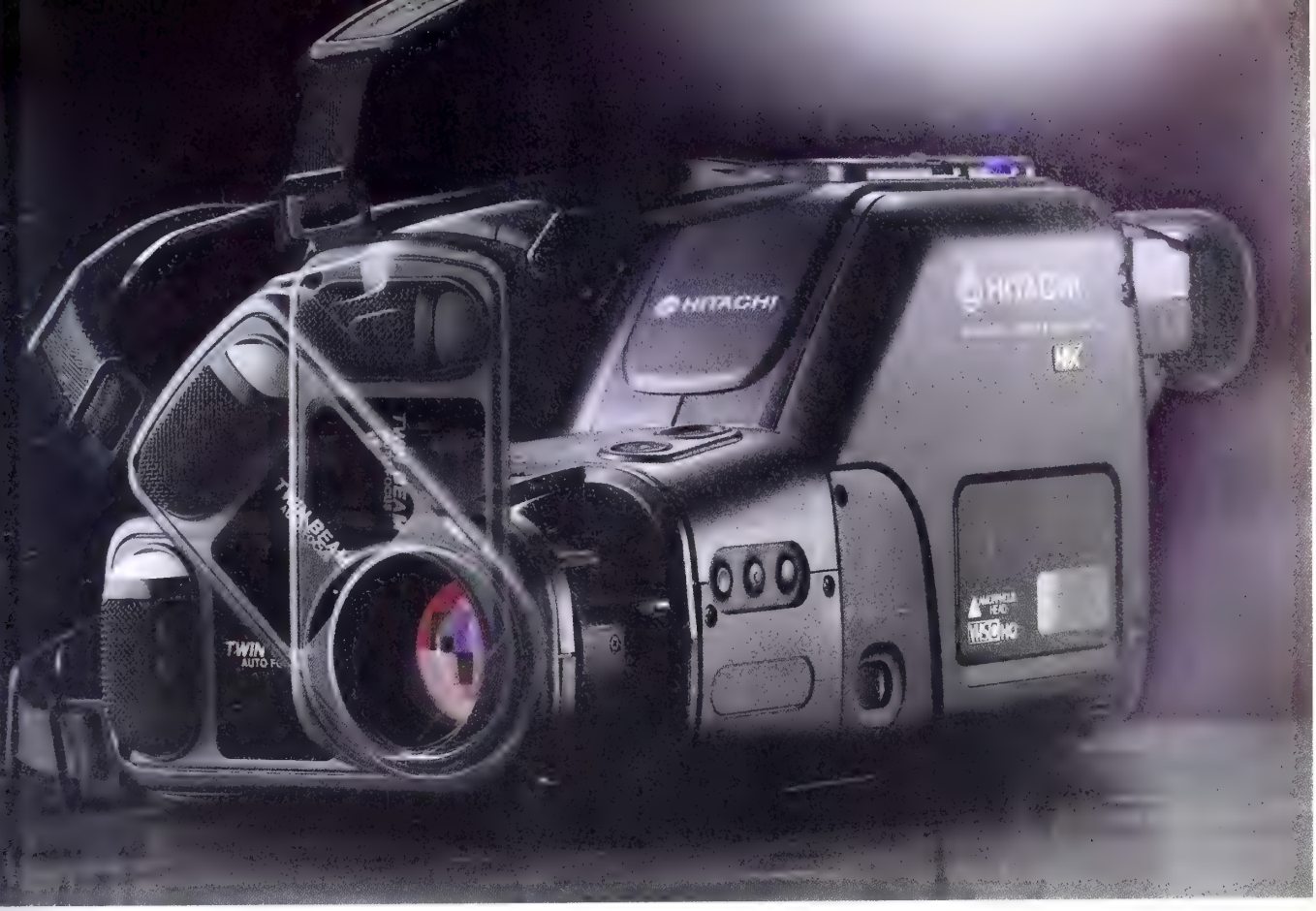
Plant manager Hoover and his staff pla Blacksburg as a n ately automated with 50% fewer p tion steps than i Erwin plant. With approval, Cornin duced job classifica from 47 to 4 to e production worke rotate jobs upon ing new skills. T workers are divide 14-member teams h for all practical p poses, manage t selves. The plan only two levels of n agement: Hoover a two "line leaders" w advise the teams b not supervise clos v.

Based on the B burg success, C has set up self-m ing teams in secti 20 other factories. Meanwhile, labor-manag "redesign teams" are planning conversion to work at many other plants. Lawrence Bank national president of the Flint Glass Wo says his members largely support the "worbl partnership" idea. "The American worker h he can't stand still while the world is mov 100 miles per hour," he says. "Deep dow realizes that the manufacturers have to c their culture and their thinking and tap into o ers' brains."

> 'We can't pass problems up the line to managers'
>
> MARY VANDEHAY
> Member, insurance

The spread of this perception among work vital for the growth of a new, more comp industrial America. But perceptions alone assure that growth. "Time is running out, cludes the skills commission study. Unless companies help improve the education syste reform their own work practices to use employees, the commission adds, "the count continue to slide toward low skills and the lo that goes with them."

By John Hoerr in Blacksbu



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HITACHI

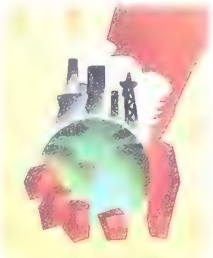
Fired at Fujitsu Ensign, White, and Turnbull have sued, charging they were let go because of age and because they are not Japanese. Fujitsu is contesting the suit

CULTURE SHOCK AT HOME: WORKING FOR A FOREIGN BOSS

When an executive headhunter approached veteran financial executive Frank B. Ensign Jr. about a job with a Fujitsu Ltd. subsidiary in San Diego, Ensign jumped at the chance. Hired by Fujitsu Systems of America Inc. in 1985 as chief financial officer, he received glowing performance reviews and pay boosts that raised his annual earnings in salary and benefits to $210,000. But his career at Fujitsu suddenly ended on Good Friday, 1989. Donald Moffet, the subsidiary's president, handed Ensign a letter announcing he had been fired as part of a companywide layoff. But Moffet then allegedly disclosed what he said was the real reason: The parent company in Tokyo wanted to replace American CFOs in all its U.S. subsidiaries with Japanese.

Ensign cited this version of his discharge in a lawsuit that he and two other Americans filed in a California state court last March. Demanding $70 million in damages, they contended that Fujitsu unlawfully fired them because of their national origin and age. Ensign was 59 at the time, while Terence J. Turnbull, vice-president of marketing operations, was 53, and Esther M. White, an executive secretary, was 65. It took Ensign 14 months to find another job, with a charitable organization where his compensation totals only $50,000 a year. "Fujitsu caused me very serious economic damage and emotional problems," he says. Fujitsu Systems, which produces banking and retail computer terminals, is contesting the suit but refuses to comment on it.

Do U.S. employees get a fair shake from overseas companies?



Ensign's discrimination suit is typical of the many filed in recent years by disgruntled former American executives of Japanese companies. These cases involve only a tiny minority of U.S. employees working for the Japanese. But they illustrate a relatively new kind of problem confronting American employees in the new global economy: how to live with foreign bosses and work systems developed in other cultures.

NO LAYOFFS. For many Americans, the Japanese notion of loyalty and dedication to the company often means subordinating family life to work. Managers essentially have no life outside the company, and even line workers are expected to put

any concerns first. At Mazda Motor Manufacturing USA Corp. in Flat Rock, Mich., a female worker who has young children complains t long overtime hours: "They want the work- o work so hard, they're so stressed out, that when they are home they aren't home." Re- ds Mazda spokesman Thomas F. McDonald: would hope that a family life is an important of a worker's attitude."

t in general, production workers have re- d better treatment from their Japanese s than white-collar employees. Japanese com- s go to extreme lengths to avoid routine lay- of blue-collar workers in et downturns. And both ese and European em- rs give workers a better e to acquire skills: One shows they spend 3 to 5 as much money on job ng as U. S. companies. At Georgetown (Ky.) plant of ta Motor Manufacturing Inc., assembly-line team r Linda Gampfer took es in soldering, mainte- e, and training other ers. "They've already giv- e skills I did not have," ays. And Toyota, Honda, Nissan brought thousands bs to semirural areas of ucky, Ohio, and Tennes- hat otherwise would have ined depressed.

e number of jobs generat- y foreign companies is ing fast. In 1988, 3.7 mil- Americans worked for for- subsidiaries in the U. S. number will rise to 4.6 n in 1991. Although the city spotlight has focused apanese employers, com- s from Britain employ al- twice as many U. S. ers (table). Canada and any also rank ahead of n.

PTIONS. In all of these anies, American manag- as a group seem to be dissatisfied than blue-col- orkers. One issue is com- to all foreign subsidiaries: ensation for senior man- is generally lower than S. companies. "If you are a senior executive foreign subsidiary, you are probably making a ss money" than a manager at the same level U. S. concern, says Alan M. Johnson, manag- director at Handy Associates, a New York iting firm.

alk up the difference in compensation to the gn companies' practice of seldom giving stock ns, a large part of U. S. senior executives' packages. To foreign employers, it doesn't sense to give managers of their U. S. subsid- stock in the parent company when they get any. And that is not likely to change anytime soon. Most foreign companies are at least a decade behind U. S. companies in giving long-term incentives, say compensation consultants. The biggest problem arises for senior American managers when their company is acquired by a foreign company. Their stock option program is usually dismantled. If the company sees significant domestic growth and the U. S. managers do not have a equity stake, "it will really grate on them," says Handy Associates' Johnson.

While American managers complain that they are underpaid by their foreign bosses, they have greater upward mobility working for European companies. Both Japanese and European companies usually install executives from the home country in the chief executive post. But Europeans rely much more on Americans in middle and upper-middle management and give them more authority. In Japanese subsidiaries, Americans "hit the glass ceiling a lot sooner" because the top three management layers are Japanese, says Brian D. Dunn of Towers, Perrin & Crosby, a New York management consulting firm.

BIG ISSUE. If Americans do hold these positions in Japanese companies, they tend to lack decision-making power. "If they can't make decisions, they feel, how can they advance?" says Martin K. Starr, who teaches management at Columbia University. "This is the No. 1 issue in the minds of American executives working here for the Japanese," adds Yoshi Noguchi of Paul R. Ray & Co. in Los Angeles, a headhunting firm that specializes in recruiting for Japanese companies in the U. S.

When they join Japanese companies, U. S. executives immediately bump into management philosophies and methods that are alien to them. The Europeans generally share cultural and political traditions with the U. S., and they borrowed heavily from techniques taught in U. S. business schools after World War II. As a result, both American and European companies stress short-term results and tend to favor managers over workers.

The Japanese, on the other hand, developed a unique managerial style and worker relationship based on a tradition that emphasizes collective values over individualism. Japanese managers invest for the long term and seek worker participation in shop-floor decisions. "Workers are empowered to a higher level, which takes away from the power of the managers," says Starr. "American managers don't like this a lot."

Americans are isolated from the inner counsels,

A SAMPLER OF THE LARGEST FOREIGN EMPLOYERS IN THE U.S.

FOREIGN PARENT		
Home office	U.S. subsidiary	U.S. employment
TENGELMANN		
Mulheim, Germany	Great Atlantic & Pacific Tea Co.	74,000
HANSON		
London	Hanson Industries	50,000
NESTLE		
Vevey, Switzerland	Nestlé Enterprises Alcon Laboratories Carnation	48,027
HONDA MOTOR		
Tokyo	American Honda Motor	46,238
ABB ASEA BROWN BOVERI		
Zurich	ASEA Brown Boveri	40,000
BRITISH PETROLEUM		
London	BP America	37,000
ROYAL DUTCH/SHELL GROUP		
The Hague	Shell Oil	32,434
SIEMENS		
Munich	Siemens	31,000
BRIDGESTONE		
Tokyo	Bridgestone/Firestone	28,000
SONY		
Tokyo	Sony Corp. of America	20,000
TOYOTA MOTOR		
Toyota City, Japan	Toyota Motor Sales, U.S.A. Toyota Motor Manufact.	8,070*

*Does not include 2,800 employees of New United Motor Manufacturing, a joint venture between Toyota and General Motors

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especially if they can't speak Japanese. Typically, American managers go home to their families after work, while their Japanese colleagues socialize. On weekends, the Japanese executives play golf, discuss business, and informally hash out decisions, Noguchi explains. By Monday morning, every manager is aware of the decision, except the Americans. "It's not intentional, but the American manager was never a part of the process," Noguchi adds. One American who served as chief counsel to a major Japanese trading company agrees with Noguchi: "The most difficult part of working for the Japanese is that you will always be working *with* the organization. You will never be *of* the organization because you are not Japanese."

Many American executives are relegated to a second-class category from the moment they are hired, says Toshiaki Taga, director of the U. S.-Japan Institute, a nonprofit research organization based in Philadelphia. The Japanese use a dual employment system for managers, Taga says. Executives sent out from the home office have the status of permanent employees, who commit their entire careers to the company. In the second category are locally hired managers who the Japanese assume will—like most Americans—jump ship as soon as a better offer comes along. The Japanese give them no job guarantees beyond what might be contained in an employment contract.

But American managers often believe that no amount of dedication to their Japanese employer can move them up in the company. One American senior vice-president for marketing and sales, who was a client of Noguchi's, left a Japanese company after seven years as its top-ranking U. S. manager. He wanted to be president. But the home office rotated Japanese executives in that post, and the American had to teach them the intricacies of the U. S. market. He broke in two Japanese presidents but resigned when the company asked him to train a third.

DISLOYALTY? Noguchi sympathized with the American. "He wasn't going to get the president's job," Noguchi says. "He created a $200 million business. He received a good salary, some bonus, and that was it." But his Japanese managers felt they had nurtured the American, paid him well, and even bought country club memberships for him, recounts Noguchi. To the Japanese, his resignation confirmed that Americans are not loyal and can't be trusted.

True, some American managers have senior positions in companies such as Sony, Nissan, Seiko, Secom, and Minebea. The top-ranked American at Toyota's Kentucky plant is Senior Vice-President Alex M. Warren Jr. His highest previous post was senior vice-president at Leaseway Transportation Corp. "I've had probably [illegible] authority and decision-mak[illegible] responsibility at this com[illegible] than any American com[illegible] I've been with," he says.

But senior Americans at [illegible]anese companies rarely call [illegible] shots and frequently pla[illegible] high-profile public-relat[illegible] role. At Toyota, Warren [illegible] Toyota USA President Fujio [illegible] give the impression that [illegible] have equal power; they sit [illegible] by side at desks in a large [illegible] area. But Warren is a sub[illegible]nate to Cho. Warren over[illegible] functions such as humar[illegible] sources and legal and publ[illegible] fairs, while Cho is a man[illegible]turing expert who he[illegible] develop Toyota's famed pre[illegible]tion system. While Wa[illegible] says Cho relies on him to [illegible] out cultural factors to con[illegible] in making decisions on [illegible] force or community issues, it's unlikely [illegible] Toyota will give control of manufacturing t[illegible] American.

Bohrer of Hoechst Celanese: 'We haven't lost any influence'

In contrast, American managers at non-Jap[illegible]nese, foreign-owned companies stand a bi[illegible] chance of maintaining local control. Take Tho[illegible] C. Bohrer, president of the Advanced Mate[illegible] Group at Hoechst Celanese, a subsidiary of [illegible] German chemical conglomerate, Hoechst. [illegible] Hoechst acquired Celanese in 1988, Bohrer [illegible] other American executives worried that the [illegible] mans would make all important decisions in [illegible] Frankfurt headquarters, overruling them. Bu[illegible] apprehension was "totally unfounded," Bo[illegible] says, adding: "We haven't lost any influen[illegible] authority, and in some cases we have mo[illegible] Hoechst left Celanese's American manageme[illegible] place and gave Bohrer the role of liaison bet[illegible] the American and German companies. He is [illegible] only American member of a Hoechst comm[illegible] equivalent to an operating committee at U. S. [illegible] panies and also is a board member at Ho[illegible] Celanese.

A LITTLE DISTANCE. One big difference is Boh[illegible] more hectic schedule. He has offices and secreta[illegible] ies on both sides of the Atlantic. Every mont[illegible] spends one week at Hoechst's headquarte[illegible] Frankfurt, one week in Short Hills, N. J., and [illegible] weeks traveling. The most important diffe[illegible] between American and German management [illegible] intangible one. "The seat of power is in Fra[illegible] furt," Bohrer says. "It's a German company. It[illegible] not traded on the New York Stock Excha[illegible] You're a little more removed from the big [illegible] cial decisions."

Being removed from the center of pow[illegible] something more Americans will have to get [illegible] to. And more and more are discovering that fo[illegible] eign companies are run by the golden rule: Th[illegible] with the gold are the ones who rule.

By John Hoerr and Leah Nathans Spiro in New York, with Larry Armstrong in Los Angeles and James B. Treece in Detroit

THE FOREIGN PAYROLL

Percentage of U.S. employees at foreign-owned companies in the U.S.*

British **20%**

Canadian **19%**

Japanese **11%**

German **10%**

Dutch **8%**

French **7%**

Other countries **25%**

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WHY WE SHOULD INVEST IN HUMAN CAPITAL

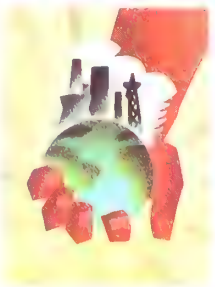
Just how bad can the U. S. economy get?

The worry runs deeper than today's slump. U. S. economic contractions in the post-World War II period have lasted on average just under a year. No, the real fear is that our stagnant productivity, failing education system, and decaying infrastructure mean Americans are no longer competitive in the global economy. "A nation's most important asset is the skills and learning of its work force," says Robert B. Reich, professor of public policy at Harvard University. "And Americans can't add value in a global economy if they are uneducated, unhealthy, or lack the means to sell their labor in the global marketplace."

How the U. S. reacts to international economic competition will determine how well its citizens live. No blueprint exists to ensure a successful response, but the U. S. could take its cue from overseas competitors. Much of their success in the global arena stems from public and private investments in maintaining and modernizing their infrastructures and in the health, education, and training of their "human capital."

Public investment is a crucial factor of production in the global economy. People today are disturbed by the plight of the cities, where drug use is rampant, murder an everyday occurrence, and racism is on the rise. But the issue is not only justice, equity, or even pity. It's economic self-interest. "A concern for poverty, health care, and education for the disadvantaged is not just an issue of compassion, but is also motivated by the need to improve our economic health," says L. Palmer, dean of the Maxwell School of Ci ship & Public Affairs at Syracuse University

It's not a social luxury, but a matter of survival in today's economy



Social investing by both government and ness can nurture a healthy and educated force. Government spending on infrastru makes for good roads and airports, which the cost of doing business. Productivity Companies invest more, which generates in and allows government to put more resource the infrastructure. "Public investment and p investment are complementary," says Isab Sawhill, senior fellow at the Urban Institu Washington, D. C. "You won't get a good p rate of return without good public investme

POOR READERS. Well, how does America sta against its competitors? U. S. government structure investment declined from a peak of ly 4% of gross national product in the 1960s now. Productivity growth fell from an av annual gain of 2.8% between 1958 and 1969 1.4% pace from 1970 to 1986. And about 5 that drop can be blamed on infrastructure ne says David A. Aschauer, economist at Bate lege. By contrast, he adds, West Germany in ed over 3% of its GNP in public infrastru between 1960 and 1986, achieving an annua ductivity growth rate of just under 3%.

America's failure to invest in human capita hurts our competitiveness. U. S. youngsters up poorly next to their future global compe About 13% of American 17-year-olds are illit compared to only 1% in Japan and Germa

HOW AMERICA COMPARES

	HEALTH CARE COSTS Total health expenditure as share of gross domestic product 1987	PUBLIC SPENDING ON HEALTH Public share of total health expenditure 1987	INFANT MORTALITY Deaths in first year as percent of live births 1987	NATIONAL MATERNI LEAVE POLICY Maximum length (Weeks) 1990	Income repl (Percent of gro 1990
CANADA	8.6%	74%	0.79%	17-18	UP TO
FRANCE	8.6	75	0.76	16-28	
ITALY	6.9	NA	0.96	20	
JAPAN	6.8	73	0.50	14	
SWEDEN	9.0	91	0.61	12	
UNITED KINGDOM	6.1	86	0.91	18	
UNITED STATES	11.2	41	1.00	NONE*	NC
WEST GERMANY	8.2	78	0.83	14	

*There is no provision at the national level. Some states grant unpaid maternity leave. Federal legislation does prohibit employment discrimination against pregnant women or those who have

N.A. NOT AVAILABLE

me age group. Some 73% of can students complete high , while the graduation rate an is 94% and in Germany, Worse yet, generation after ation of American high graduates once came to first jobs better prepared ac- cally than the preceding gen- n. But that is no longer the according to John Bishop, mist at Cornell University. ving test scores, he con- that graduates in the 1980s more than one year behind 1966 counterparts. This de- n academic ability cost the economy a bundle, cutting NP alone by 1.9%, or $86 billion, estimates . He calculates that the cumulative shortfall from deteriorating education between now 010 could amount to more than $3 trillion. l, companies are already spending some $30 a year on employee remedial education.

oated health care bill is a competitive drag, merica's health care system, a patchwork of , nonprofit, and public purveyors, absorbs than 11% of GNP—and it could hit 15% by Yet about 33 million Americans, two-thirds n in families with a head of household hold- full-time job, have no health insurance. By rge, Europe and Japan spend 6% to 9% of r their national health insurance programs, ey have lower infant-mortality rates and life expectancy.

LE BOOSTERS. Government spending, of , is no panacea. In today's complex econo- ublic initiative and private activity must be ed. The government has become too domi- several European countries, including Swe- d Holland, which are rolling back taxes and tions to reinvigorate their economies. In the meanwhile, business has traditionally played e important role in meeting the retirement, care, and family needs of workers than in of Europe.

Prenatal care at Sunbeam's Couchatta (La.) health clinic has reduced maternity costs from $27,000 per birth in 1984 to $3,500 last year

Indeed, more and more U. S. companies are overhauling their employee benefit programs to boost productivity. Many are taking into account the changing family needs of their employees. After all, less than 7% of U. S. households fit the 1950s' profile of a breadwinner husband, a housewife, and two kids. So more companies are helping with child care, elder care, and other family responsibilities in order to lower employee turnover, cut down on lost workdays, and improve morale. "You have to look at [flexible benefits] more as an investment than a cost," says Gary L. Habegger, vice-president of human resources at B. F. Goodrich Co.

Du Pont Co. agrees. On top of paid maternity leave averaging six to eight weeks, the company now lets employees take unpaid family leave for up to six months or work part-time for six months. And they keep their benefits intact. The option is geared toward new fathers and mothers or workers coping with a serious family illness. Du Pont has also invested more than $1 million in Delaware programs to expand child care services. It's good business. And smart social policy. "The human capital of our country is small children," says Faith A. Wohl, director of work force partnering at Du Pont. "And we must have high-quality child care if our children are to succeed in school."

More and more companies are beginning to recognize that encouraging good health improves the bottom line, too. Mutual Benefit Life Insurance Co. built a fitness center for the 1,400 employees at its Newark (N. J.) headquarters. In 1989, users of the health club missed 2.51 workdays and filed medical claims averaging $313. Employees who didn't use the facilities missed 4.25 workdays and had medical bills averaging $1,086. The company also set up an on-site health clinic for employees. "We are getting an economic payback of two dollars for every dollar invested," says Henry E.

NDING ATION 1st grade	LABOR FORCE PARTICIPATION Men 1989	Women 1989	OLDER POPULATION Percent of population 65 years and older 2000	PUBLIC SPENDING ON WORKERS Expenditure on labor market programs as share of GDP*** 1988	MURDER RATE Homicides per 100,000 men ages 15 through 24 1987	GOVERNMENT SOCIAL SPENDING Social expenditure as share of GDP 1985
4	85.9%	67.5%	12.9%	0.52%	2.9	22.6%
7	75.4	55.7	15.2	0.81	1.4	34.2
6**	77.8	44.0	15.4	0.90	NA	26.7
2	87.2	59.3	15.1	0.20	0.5	16.2
3	85.6	81.0	16.6	1.79	2.3	32.0
9	86.8	65.2	14.5	0.77	NA	20.9
2	85.9	67.9	12.2	0.25	21.9	18.2
7	82.9	54.4	12.0	1.05	1.0	25.8

***Includes employment services, labor market training, special youth measures, direct job creation, employment subsidies, and measures for the disabled, but not income maintenance

DATA: OECD, EMPLOYER BENEFITS RESEARCH INSTITUTE, NATIONAL CENTER FOR EDUCATION STATISTICS, *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, BW

Kates, chief executive at Mutual. "Including employee morale, the payback may be even greater."

Sunbeam Oster Housewares Inc.'s medical costs soared at its Coushatta (La.) plant in 1984 and 1985, during which it paid out $1.2 million to cover six premature births. The company discovered that in this rural community many of its 300 women employees had not learned good prenatal care. Sunbeam set up a health clinic at the plant and began requiring periodic medical checkups for expectant employees and attendance at a bimonthly education program. Thus far, more than 100 women have gone through the program, and maternity costs have dropped from an average of $27,000 per birth in 1984 to $3,500 in 1989.

Du Pont's Wohl visits Sniffles & Sneezes, a Wilmington (Del.) day-care center for kids with colds who otherwise would require care at home

Prenatal spending on a nationwide basis also makes economic sense. Approximately 250,000 babies are born prematurely in the U. S. each year, many to mothers in inner cities and rural areas. And low birthweight is the leading cause of infant deaths in the U. S. An Office of Technology Assessment report estimated that $1 spent on prenatal care saves nearly $3.50 in health care costs. Japan has shown that a national commitment to universally accessible prenatal care works: Its infant-mortality rate in 1960 was about 15% higher than that of the U. S.; it is now 50% less and the world's lowest.

TRICKY IMPORTS. Indeed, our competitors' experience shows that channeling resources into ensuring broad access to good health care and effective education carries a big economic payoff. Still, many social policies that work abroad can't simply be imported here like a VCR or car. Generally, policy initiatives reflect a country's culture and political history. National health insurance abroad has proven highly effective at bringing health care expenditures under control while offering all citizens basic medical services. But in the more market-oriented U. S., any universal health system will probably include a hefty private-sector role. Likewise, the highly effective Japanese school system is tightly controlled by the Education Ministry. In the U. S., state and local governments run the public schools. And the growing movement for educational reform is premised on par choice and promo competition among lic schools for stud not on concentra power in the U. S. cation Dept.

STAY PUT. The fe government could improve economic ciency by making i ier for workers to from where they not needed to w they are. Emplo even after they been laid off, are to look for jobs in industries. They te hold on until the or office is shutt And even then, ma them lack the ski work in other industries. Government job-tra programs could help alleviate that problem course, many other factors affect labor mo including home prices and the cost of livi different regions of the country. But goverr could also remove another impediment to jo ping. Federal legislation could make pe "portable" so that when workers covered defined-benefit pension plan change jobs th longer would lose a hefty chunk of their ment income (table). "You need mechanisms into the system so employees can go fro employer to another as smoothly as poss says Raymond E. Sharp, director of interna services at Buck Consultants Inc.

Economic distress has forced governmen business to expand their social roles before. 1930s, for instance, the nation abandoned t fettered free market to protect citizens fro nomic hardship. Social Se unemployment benefits, p pensions, and all the other accoutrements of moder nomic life in America too in those tough economic d

That's not happening. economy falters, business ting back on its "social ing" to shore up short-term its. But the gale winds of competition should be f both executives and po leaders to think about ou term future. The key to economic growth, healthy rate profits, and higher standards over the long productivity. And that, competitors know well, investing in people and i ing their social welfare.

By Christopher Farrell York, with Joseph Weber in delphia, Michael Schroe Pittsburgh, and bureau rep

THE TYPICAL PENSION PLAN PENALIZES THE MOBILE EMPLOYEE

	Number of years employed	Annual benefit at age 65	Benefit as a percent of 5-year final average pay
FULL-CAREER EMPLOYEE			
COMPANY 1	30	$42,000	37%
JOB-HOPPER			
COMPANY 1	5	2,100	2
COMPANY 2	5	2,600	2
COMPANY 3	5	3,400	3
COMPANY 4	5	4,300	4
COMPANY 5	10	14,000	13
TOTAL	30	26,400	24

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INCOME AT HIRE $30,000 — VESTING 100% after 5 years
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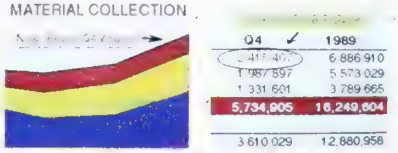

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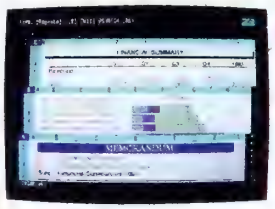

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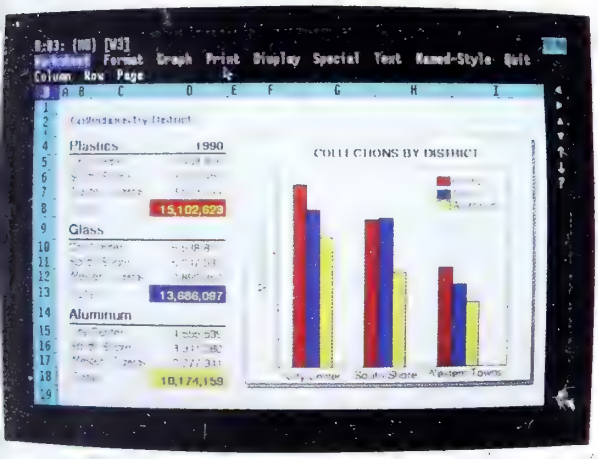

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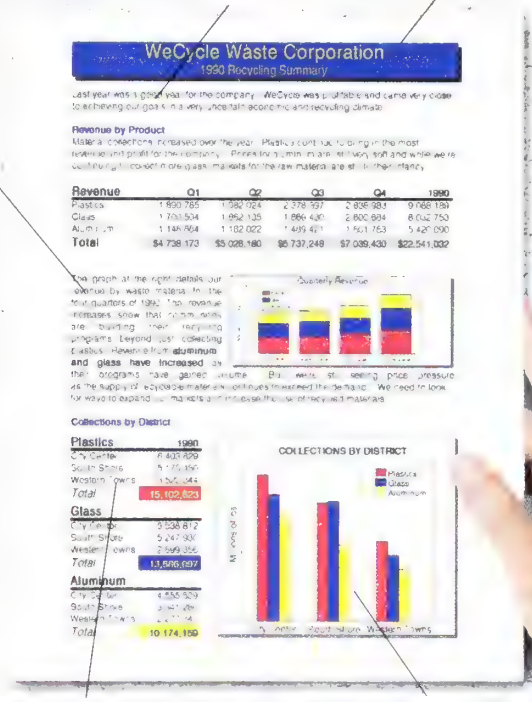

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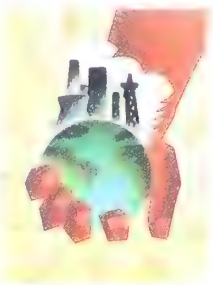
ASK NOT WHAT YOUR ECONOMY CAN DO FOR YOU...

For nearly two decades, the world's strongest economy has experienced a marked decline in its share of global output and an insidious decline in its living standards. U.S. policy in the face of this erosion has been one of neglect, or, worse yet, downright denial. Government, business, and individuals blinded themselves to economic distress by borrowing. But it has been clear for some time that America's declining competitiveness merits far-reaching moves: Economists have said that America needs to invest more and raise productivity. Labor experts have recommended heavy investments in training and retraining. Educators have urged school reform.

None of this is mysterious. BUSINESS WEEK has often led the way in conveying these views. It has been apparent, each time we return to the subject of competitiveness, that much needs to be done. Yet, Americans have failed to act.

Why? Because, as individuals, we've tended to think it isn't our problem but someone else's. When autoworkers were losing their jobs in the mid-1980s, U.S. consumers quite rationally kept buying the cheaper and better-made im When inner-city schools deteriorated, white for the suburbs. As individuals we've been out of our perceived self-interest. But as a n we should be acting to build better cars an better schools.

Americans must pull together to undo two decades of neglect



CONSENSUS. Nearly two decades of neglec now catching up with us. BUSINESS WEEK has onstrated in this Special Report that no untouched. Employees in most industries seen their wages eroded in a hotly compe environment. And even the minority who comes have risen is not spared. You may from the global economy because you man successful export-oriented business. But you theless pay a price—in poorer schools, a h crime rate, and a deteriorating quality of life being part of a society that has failed to co its problems. You are diminished when so else's life is diminished.

The old recommendations are still the ones. But all the policy prescriptions in the don't stand a chance unless Americans and leaders muster the collective will to adopt

ake them work. As difficult as it is in a tic society, America must develop a nation- ensus. Individuals must look beyond their nk balances, executives and investors must yond the next quarter's results, and politi- nust look beyond the polls. Once we're o do that, we might consider the following: stment is vital, just as the economists say. t merely in plant and equipment. The Cold over, and notwithstanding the cost of our n the Persian Gulf, the U. S. will be receiv- ong-term peace dividend. We should divert resources toward shoring up roads and and building airports. Growth requires a nctioning infrastructure.

important, though, we should redirect our s and our investment dollars toward Amer- ost precious resource—ourselves. Study af- dy has shown that investment in human pays off handsomely. That means starting Proper prenatal care produces healthier ba- nd preschool programs such as Head Start roven their worth for disadvantaged kids. oo, the schools must be overhauled, so that ts graduate with both basic knowledge and lity to think creatively.

our investment in people shouldn't stop We should consider starting an apprentice- ystem, organized on a regional basis and d loosely on European apprenticeship sys- n such a system students would learn aca- subjects as well as specific work skills. U. S. nies should dedicate themselves to providing ve—even expensive—training on the job, so mployees can continuously upgrade their

Resources need to be re-allocated and invested in people. The peace dividend should go toward training programs, schools, and available health care

skills. Those companies that do so today find both the workers and the company prosper as a result.

And we should consider making changes in the social infrastructure, such as allowing pensions to be portable. We should also find some way to make basic health care available to all Americans at a reasonable cost. This doesn't mean we have to nationalize health care. But we might consider giving the government a greater role in regulating the prices of certain medical procedures, as it does now for medicare patients.

PAYING THE PRICE. The list isn't exhaustive, and the dollar signs keep popping up. Will taking such steps be costly? To be sure. But we can pay a price now for a long-term gain or pay a far greater price later on. One possibility: tilt the tax code away from protecting property and toward promoting people. Is it unthinkable to scale back the mortgage deduction? Companies could then get tax breaks for training programs. And individuals could receive education tax credits.

It's time for Americans to demonstrate national resolve about America's economic future. If we move beyond self-interest to confront difficult issues, we might just rekindle the spirit of exceptionalism that motivated our forefathers. America may no longer be that city on the hill, says Todd A. Gitlin, a sociologist at the University of California at Berkeley, but we might become "one of the town criers in the global village." And perhaps the one that people around the world listen to most.

By Karen Pennar in New York

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IES

NHUT FACILITY IN TEXAS FOR PRISONERS WITHIN TWO YEARS OF RELEASE

CKENHUT IS OUT TO PROVE AT CRIME DOES PAY

ecurity company is looking to private prisons for growth

sing crime rates. Overcrowded risons. Shrinking state budgets. Big trouble, right? To you, may- to Wackenhut Corp., that sounds ecipe for growth. For years, the Gables (Fla.) company has been ıg for a way to diversify beyond margin core business of provid- urity-guard services. Now, be- f the mounting pressures on the enal system, it seems to have ne. Wackenhut is quickly becom- ader in the growing and contro- business of building, managing, rating private prisons.

ov. 29, Wackenhut stepped into House big-time. It opened its dium-security prison, one of only edium-security institutions under management nationwide. The ıte prison in Allen Parish, near ıarles, La., brings to 11 the num- ails, prisons, and detention facili- naged by Wackenhut's correc- bsidiary. The new Allen Parish s a milestone for the four-year- ure. Minimum-security facilities, the ones it has been operating, ıall fraction of the penal system. and maximum-security facilities account for 80% of all prisons.

President Richard R. Wackenhut, 42, sees private prisons as a vast new opportunity for the company founded 35 years ago by his father, George, a former FBI agent who remains chairman and chief executive. Corrections will contribute just 5% of the company's estimated $524 million in revenues in 1990—and little or none of its $6.8 million in profits. But the business provides 25% of Wackenhut's sales growth. "It is clearly our thrust," says Richard Wackenhut. "The geometric projections for the next few years are going to be in corrections."

STRAPPED. The penal system is certainly a hot-growth business. Drug arrests and tougher sentencing guidelines in the past five years have sent the nation's prison population soaring by 51%, according to Camille G. Camp, a principal at the Criminal Justice Institute, a nonprofit research group, while prison capacity increased just 30%. A total of 37 states are under court orders to curb prison overcrowding.

> Although Wackenhut's prison revenues zoomed to $30 million this year, profits have been marginal at best

With voters increasingly reluctant to spend money for new prisons, cash-strapped federal agencies and state governments are looking for alternatives. They're finding one in private prisons, allowed in about half the states as well as by federal agencies, such as the Immigration & Naturalization Service (INS) and the U. S. Marshals Service.

DAILY FEES. Private prisons, which now house 1% of the total prison population, are typically built and owned by the government. They're privately operated under a contract that pays daily fees based on the number of prisoners. At Wackenhut's new Louisiana prison, for example, the state will pay $23.29 a day for each prisoner. In its first year, the prison will cost the state an estimated $791,000 less than if it were publicly run.

The contracts require private operators to provide the same standards of guard training, rehabilitation, recreation, and other services mandated in a state-run facility. Charles W. Thomas, a criminology professor at the University of Florida, estimates that 10% of all prison beds, mostly in minimum-security facilities, will eventually be privatized—and that share could grow if companies perform well with medium-security prisons.

The prospect has attracted several competitors. Industry pioneer Corrections Corp. of America is the leader, with 18 facilities. "We literally spent millions of dollars educating our legislators on the advantages of private-prison operators," says Doctor R. Crants, chief executive of CCA. Closing in on Wackenhut's No. 2 position is Pricor Inc., which has five facilities and will open six 500-bed prisons in Texas this spring.

Despite the growth prospects, though, private prisons haven't been wildly profitable so far. CCA turned its first profit of $1.6 million on revenues of $36.7 million last year, after seven years of operation. Wackenhut Corrections Corp.'s revenues have zoomed from $2 million in 1987, when the company opened its first facility, an INS detention center in Denver, to $30 million this year, with a $45 million target in 1991. But the unit is at best marginally profitable, largely because of hefty marketing and corporate staff costs. Overall, Wackenhut's earnings rose 19%, to $4.9 million, in the first three quarters of 1990 on revenues of $387 million, up 13%.

The private-prison industry is also facing growing political opposition. Legal

and political challenges have stalled Florida's prison-privatization effort, for example, despite legislation passed four years ago authorizing private contracts. Critics, such as the American Civil Liberties Union and some legal scholars, charge that contracts based on prisoner counts could make private jailers try to prolong prison stays—for example, by blocking grants of time off for good behavior. Others say private operators will be less accountable than the state. The contract-prison companies argue that they have no say in legal decisions, such as prison terms, and that the states review their operations.

Still, Wackenhut has hit some bumps. Three months after the company assumed management of an existing county jail in Key West, Fla., an inmate escaped twice in the same day. A short time later, college students arrested on misdemeanors during spring break were strip-searched by Wackenhut jailers, and the ACLU now plans to sue Wackenhut, charging "grossly inadequate training of personnel," says James K. Green, the ACLU's legal director. George Zoley, president of Wackenhut Corrections, says the company has corrected some procedures, and attributes the security problems to poor design of the jail.

Despite the problems, prisons appear to be a promising arena for private companies—especially compared with some other public services Wackenhut has tried to privatize. Throughout the 1980s, as it sought to branch out from its guard business, Wackenhut experimented with private emergency medical services and airport crash-and-rescu vices. It found few takers. It oper Job Corps training center in G Okla., but it hasn't been able to any additional contracts. And two cal subsidiaries, which provide ele detection and surveillance service at best breaking even.

SITES ABROAD. To boost margins core security business, Wackenh developed an array of specialize vices. About 25% of revenues com Energy Dept. contracts for protect such facilities as the Savannah Riv clear plant and the Strategic Petr Reserve. It manages Energy's Training Academy and provides s training for other government a porate clients. Wackenhut also op in more than 40 countries, prot corporate offices and U. S. embas

Still, Wackenhut is a fairly No. 3 in the security industry, Borg-Warner Corp. and Pinkerton and the company admits that s services remains a fiercely comp price-sensitive business. So, whil ons may seem like the end of the a life of crime, Wackenhut is l forward to a future behind bars.

By Gail DeGeorge in Coral Gabl

WACKENHUT IN A NUTSHELL

Founded: 1954
Headquarters: Coral Gables, Fla.
1990 revenues (est.): $524.0 million
1990 net income (est.): $6.8 million

- Provides security and investigative services to business and government in U.S. and 40 other countries
- Wackenhut Corrections unit manages 11 correction or detention facilities
- Other units provide security training, offer institutional food and health services, and design and sell electronic security devices

DATA: FURMAN SELZ MAGER DIETZ & BIRNEY INC. ESTIMATES, BW

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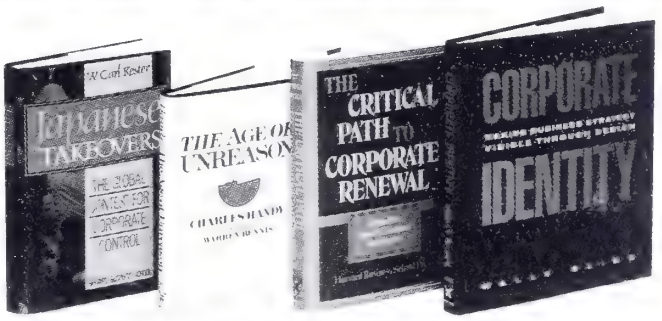

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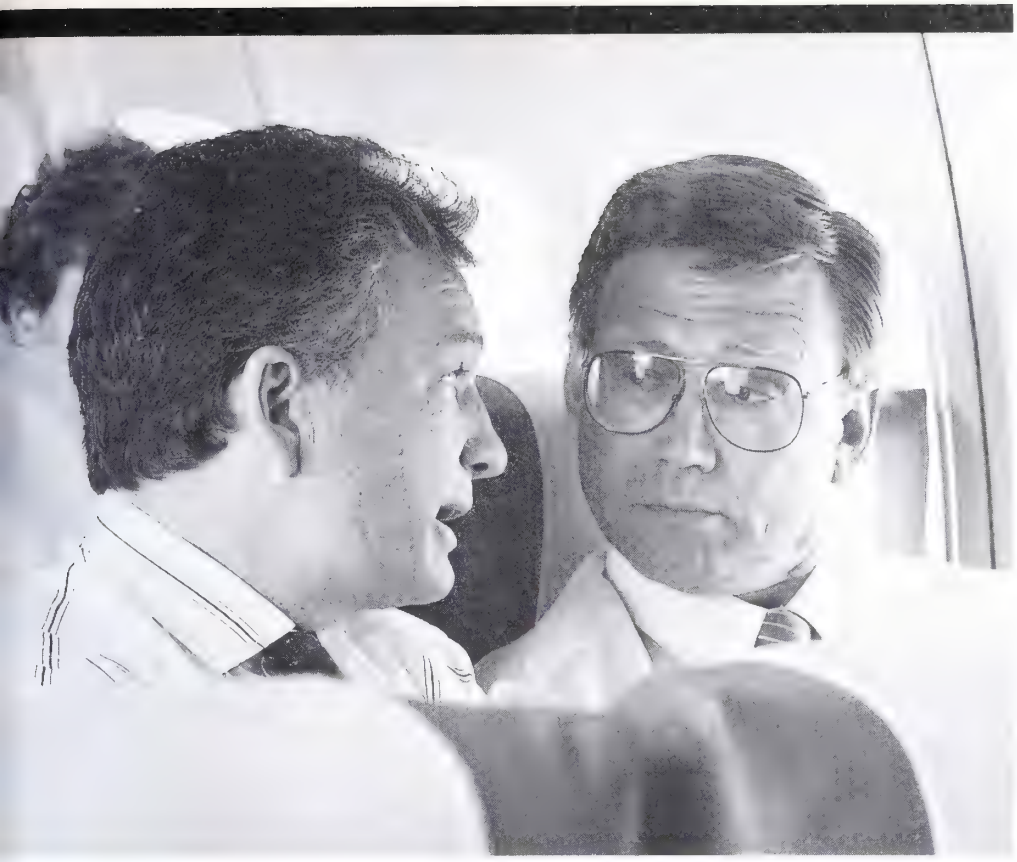

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Why pay $80 for a brokerage account with hecking when you can go first class free?"

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SchwabONE	**Free**	**$5,000**	**Yes**	**Yes**
Merrill Lynch Cash Mgmt Account	$80	$20,000	No	No
Dean Witter Active Assets Account	$80	$10,000	No	No
Shearson Lehman Financial Mgmt Account	$100	$10,000	No	No

Based on a survey conducted by Charles Schwab & Co., Inc. in June, 1990

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PERIPHERALS

FOR KATHY BRAUN, THIS ONE'S THE MARATHON

Can Western Digital's disk-drive whiz turn the company around?

Huddled behind her ashtray, off in a corner of her expansive office, Western Digital Corp.'s Kathryn A. Braun leans back, takes a long drag on her Virginia Slim, and exhales slowly, for effect. "I've been in storage for eight years," she deadpans.

Disk storage, that is. And she has done such a good job that she was recently named executive vice-president in charge of all business operations of the $1 billion Irvine (Calif.) company. The hard-disk drives and related product lines that she managed already provide two-thirds of Western Digital's revenue and virtually all of its profits. At 39, she's now the clear No. 2 to Chairman and CEO Roger W. Johnson, 56.

But first, she has a lot of fixing to do. For the year ended June 30, Western Digital's earnings sank 29%, to $24.2 million, as revenues rose a sluggish 8%, to $1.07 billion. The company has been slow to bring out new products, and analysts are now bracing for a write-down on aging inventory that they predict could push Western Digital into the red for the second quarter, ending Dec. 31. "We had a mediocre first quarter, and the next couple aren't going to be all that great either," acknowledges Johnson. Western Digital shares now trade at around 5—down from an all-time high of 33 in May, 1987.

BRAUN: FOCUSING ON A FAMILY OF PC PARTS

Braun, who majored in biology at Duke University and joined Western Digital 12 years ago, earned her spurs by reviving Western Digital's hard-disk operation—most of which was acquired from financially troubled Tandon Corp. for $56 million in 1988. That made her stand out in the clubby, male-dominated disk-drive business. "Tandon had tremendous problems," says Raj Rajaratnam, managing director at Needham & Co. "But, amazingly, Braun has managed to run her business profitably."

To wring profits from the company's other businesses, Braun is taking cues from the strategy that Johnson set in motion in 1986. Then, the company's biggest business was disk controllers, printed-circuit cards needed to run the disk drives in personal computers. As diskmakers began to build controllers into their products, Western Digital decided it had to diversify. It spent $25 million buying six small companies that made PC components (chart).

More recently, the strategy has been refined to what Johnson calls "interarchitected products." The idea is to build a family of components that, if used together, provide superior performance. For example, a Western Digital logic chip set—the circuitry that helps control a PC—can work like similar components from companies such as Chips & Technologies Inc. But if used with Western Digital disk drives, controllers, and video chips, it produces a much faster PC. The concept has won over some key customers, including Orange County neighbor AST Research and IBM, which industry sources say is expected to use some Western Digital parts in a new line of laptop computers due out in February.

ON TRACK. Still, Western Digital has had trouble delivering. Instead of a single interarchitected product, it has six separate engineering and marketing units have dribbled out the new components over the course of the year. None will ship in volume until 1991. Meanwhile, other components are now outdated, leaving the company with few hot products to sell.

To fix things, Braun has created companywide engineering and marketing units and named herself to the new corporate marketing chief. She has cut 100 jobs, and analysts say more layoffs will come in 1991. Low-margin consumer businesses, such as PC logic boards for networking and graphics, are being deemphasized. As a result, sales through dealers have dropped from 50% of revenues to 30%. "Her job is to 'interarchitect' the company's business practices to improve profitability," Braun says.

Convincing investors that Western Digital is on track will be tough. The company has reeled from Chapter 11 bankruptcy as a calculator-chip maker in 1978 to record earnings of $46 million in 1987. Braun, who jogs five miles a day despite her pack-a-day habit—figures she has the stamina to get Western Digital going. After all, eight years in storage gave her plenty of time to plot a comeback.

By Larry Armstrong in Irvine, Calif.

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Imagine a huge hall filled with every single piece of consumer electronics gear known to man. Throw in 70,000 or so manufacturers, buyers for major retail chains and other people connected to the industry. Add some music and a carnival atmosphere, and you have a good picture of the annual Winter Consumer Electronics Show in Las Vegas, sponsored by the Electronic Industries Association/Consumer Electronics Group.

The show, this coming January, is not open to the public, but on the following pages we'll take you on a sneak preview of the latest advances in home entertainment and home productivity gear: Cellular phones small enough to slip into a sports jacket pocket or a purse; home office fax machines with the features and power formerly limited to expensive business machines; laser videodisc players that make the difference between just watching TV or home theater—and much more.

So relax, turn the page, and see what tomorrow will bring.

CORRESPONDING IN THE 90S: JUST THE FAX MA'AM

Fax machine manufacturers are about to revive the fine practice of written discourse, electronically delivered. That's what will happen if, as a few of them suggest, fax machines in the home will become in the next few years as ubiquitous as the telephone. Dust off the thesaurus and sharpen those quills. It's time to move forward into the past.

By the end of this year no more than two to three percent of all U.S. households will own a fax machine, virtually all of them for home offices. By any reasonable assessment, fax machines are and will continue to be a business productivity tool. But as prices continue to decline manufacturers are starting to eye a low-end segment that could soon cross over into a pure consumer market.

"That's what all the manufacturers want to target," says George Green, director of marketing and sales for Ricoh's Home Office Products group. Ricoh, he adds, is seriously considering a bundling approach that would package two stripped down fax machines, each priced at about $300, for general consumers. The target customers are parents with children away at college, adults and their parents and relatives who live far from each other.

While that strikes some other marketing types as overly ambitious, it's clear that fax machines, like telephone answering machines before them, are going to expand their reach from the office desk to the den end table. The only question seems to be whether it will happen next year, as Green suggests, or, in the view of some other manufacturers, several years from now.

"A fax machine is still a business product," says Bill Kopp, general manager of Panasonic's Communications Products/Home Information division. "But there's some impetus to suggest that by the year 2000, most households will have some form of fax."

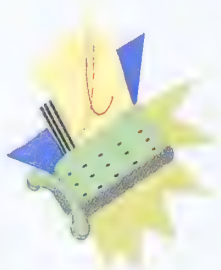
Those machines will differ markedly from business and home office fax models in their emphasis on simplicity. "We wish to switch all regular phones to fax machines someday," says Mitsuo Goto, assistant marketing planning manager for Canon Home Office Products. "[Consumers] do not need a business machine which has a lot of complicated functions."

TRICKLE DOWN TECHNOLOGY

If the home fax machine is the promise of the future, then the increasingly feature-packed home office fax machine defines the payoff for the present. Fax machines designed for home office and small business use, increasingly borrow the convenience and performance features developed for office equipment fax models.

Two features rarely found in home office models a year ago—paper cutters and internal memory—are in fact, quickly becoming standard in all but the least expensive machines. While a built-in paper cutter is arguably a convenience, internal memory could prove to be a critical addition. A fax machine that can store an incoming fax in memory if it runs out of paper should prove an irresistible attraction to any home office worker who forgot to change the paper roll before leaving home.

"My guess is that memory will become the next great issue in home office fax," says Panasonic's Kopp. How much memory is enough? "For a home office machine, the ability to store between five and seven pages should be enough."



Still, storing a message is one issue. The ability to read it is another, and anyone who's had to decipher a hieroglyphic-like fax produced by a poorly-built machine quickly learns to appreciate image quality. More than one manufacturer is touting improved image

TODAY OPPORTUNITY DOESN'T KNOCK. T CALLS, IT FAXES AND T LEAVES MESSAGES.

Panasonic introduces a complete communications center for the home office.

Every time you miss a call, miss a fax or miss a message, you may be missing an opportunity. That's why Panasonic introduces an automated communications center specially designed for home offices and small businesses. The new Panasonic KX-F90. This sophisticated system knows when an incoming call is a phone call or a fax and automatically switches to the proper function. Which means it can handle all your calls, messages or faxes with just one phone line.

With its automatic paper cutter and a 10-page document feeder, you don't have to stay in the room to send or receive faxes. And since it can produce 16 shades of grey, your faxes will have excellent reproduction of charts, graphs and photographs.

And its phone system and built-in answering machine has what every business person needs—Privacy Ring. It lets you know if a call is important before you answer it.

Today opportunity doesn't knock. And it can slip through your fingers if you don't get the new Panasonic KX-F90 communications center. ■

Panasonic

just slightly ahead of our time.

resolution as a selling point on new machines and that should remain a hot button for some time to come. One example: Canon's UHQ [Ultra High Quality] fax machines with 64 shades of gray and edge enhancement circuitry for better photograph reproduction. Most home office fax machines, in comparison, have 16 gray tones.

The next step in home office fax? Models that print on plain, rather than thermal paper. Plain paper fax is attractive for several reasons—it is cheaper than thermal paper and provides a clearer picture. And since plain paper is more durable than thermal fax paper, it's more practical for people who want to keep messages for their files.

Plain paper fax machines are common in the business equipment market. The challenge for manufacturers is to reduce the cost of the technology to make it affordable for home office and small business customers.

Some companies have experimented with inkjet technology and dot matrix printers as an alternative to the laser printing mechanisms used in most plain paper fax machines. Panafax, for example, the business equipment division of Panasonic, sells an inkjet fax machine. Still, most manufacturers argue that only laser printers will make plain paper fax practical. However, a reliable, laser-based plain paper fax with a suggested retail price at or below $1,000 is still probably two years off.

"The only thing I can say at this point," Canon's Goto concedes, "is that it may be possible."

A COMPUTER WITH A ONE TRACK MIND

Word processing programs outsell almost every other variety of personal computer software, and with good reason. Most reports, letters and other documents today are generated on a computer.

Personal word processors are actually dedicated computers with word processing software built in. The least expensive models are little more than a typewriter with a spelling checker and an LCD readout capable of displaying a line or two of text before printing. At the other extreme, manufacturers offer computer-style monitors, full-blown word processing software with a sophisticated dictionary and thesaurus built-in and a disk drive to store documents before printing. A few manufacturers, notably Smith Corona and Panasonic have even built battery-operated lap-top word processors for people who need to bring their office—at least a part of it—with them on the road.

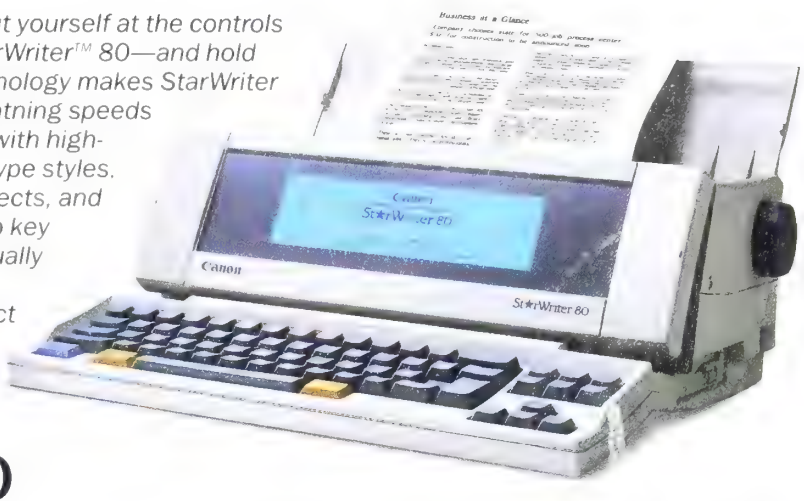
Although both Panasonic and Smith Corona have added spreadsheet programs for some models, there's not much chance that manufacturers will offer much more in the way of software. One indication that personal word processors have been accepted on their own merits, is Panasonic's market research which shows that 27 percent of the people who buy one of the company's personal word processors already own a personal computer.

Still, there's no denying the synergy between PCs and PWPs. The word processing software built into new personal word processors, for example, should prove easier to use and more flexible, as manufacturers borrow some desktop publishing features, such as different typefaces and simple formatting. The graphic user interface, popularized by Apple for its Macintosh PCs should also pop up on some new machines

A test drive will give you some idea of what it's like to use a StarWriter.

Like speed? Action? Excitement? Well, put yourself at the controls the revolutionary new Bubble-Jet Canon StarWriter™ 80—and hold to your seat. Breakthrough non-impact technology makes StarWriter e first personal wordprocessor to print at lightning speeds to 160 characters per second. And the first with high-solution printing. A dazzling array of built-in type styles, es and fonts. Scientific symbols, graphic effects, and er 20 foreign languages. Plus an on-line Help key at insures a very easy ride. And all in one virtually ent and very portable unit.

The new Canon StarWriter. The simple fact it leaves all the others in the dust.



Canon

StarWriter™ 80/20

PERSONAL WORDPROCESSOR

StarWriter 20, featuring enhanced thermal transfer printing, also available.

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next year. Some personal word processors, such as Sharp's new PA-W1400 and PA-W1410 even offer MS-DOS compatibility, so files created on the two machines can be read and edited on an IBM-compatible personal computer. In fact, compatibility with personal computers,along with built-in modems for electronic communication, will be increasingly common features on future models.

Those changes are quickly dividing the market for word processing into three distinct segments: At the low-end are electronic typewriters for people who rarely need more than a basic tool for correspondence. The middle segment consists of dedicated word processors with spelling checkers, thesaurus and other enhancements and all—with the exception of laptop models—incorporating a printer. At the upper range are personal computers with word processing software geared to high-volume work and desktop publishing in particular.

For now, the pressure on manufacturers to hit a certain price point is causing them to cast a hard eye on which features make the most sense for consumers. "In order to hit a price point," a marketing executive with one major manufacturer says privately, "you're going to have to trade features."

THE SINCEREST FORM OF FLATTERY

It's not exactly the same as a chicken in every pot and two cars in every garage, but the advent of the personal copier in the '80s has made life at home easier, at least for those who commute to work by walking down the hall.

Copiers compact enough to sit on a desktop and inexpensive enough to fit the budget of the self-employed have become a welcome alternative to the corner copy center and a roll of quarters.

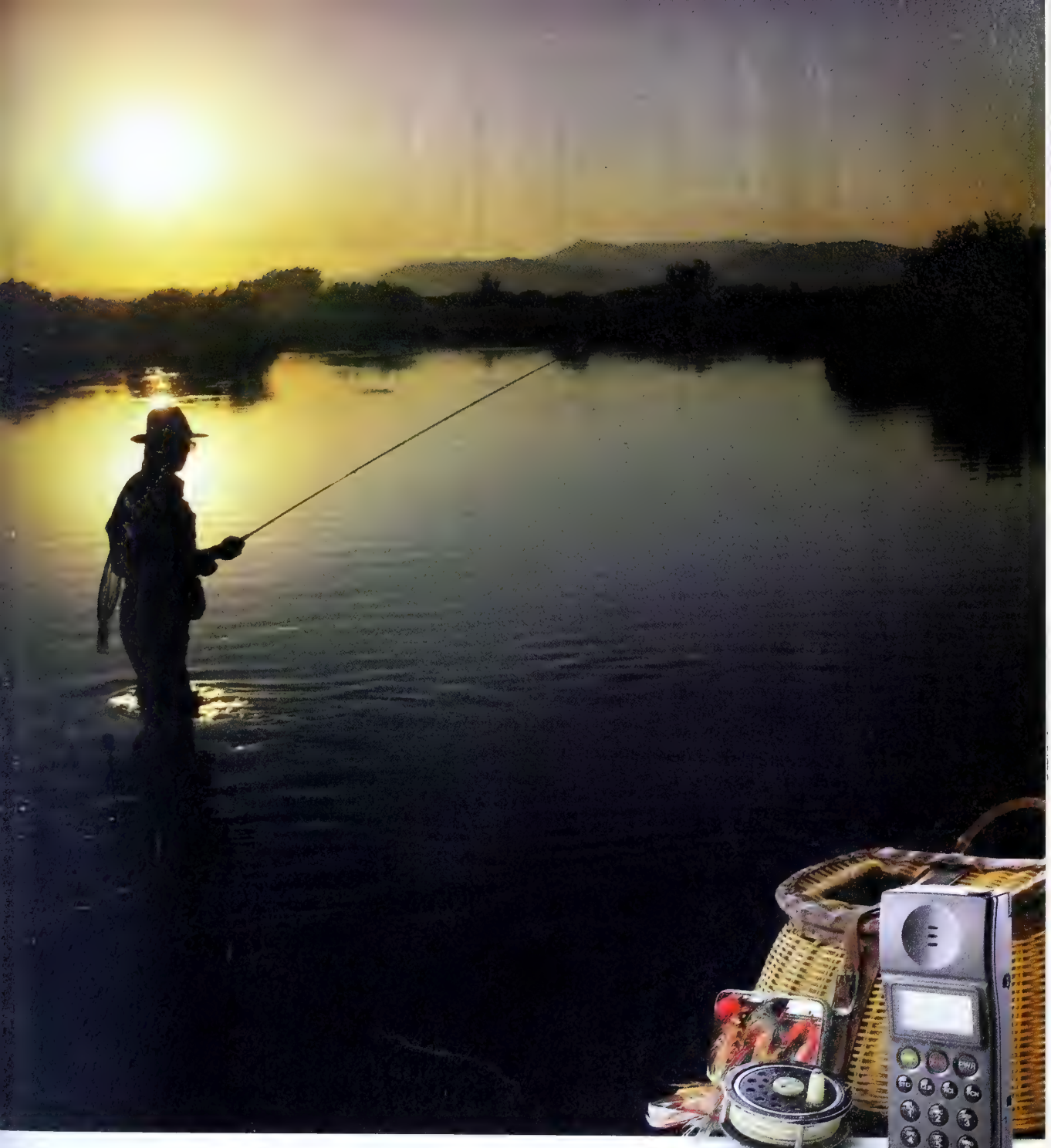
Fewer than 140,000 personal copiers were sold in the U.S. last year, according to Canon, the market leader in personal copier sales. But as prices come down and the number of home offices increases that number should expand significantly.

Personal copiers were born in 1983 with the development of the mini cartridge system by Canon, combining copier drum, toner and developing unit in one disposable package. Instead of filling reservoirs with unwieldy chemicals, as was the case with commercial copiers, personal copier owners found they merely removed a used cartridge and replaced it with a fresh one.

That convenience, combined with retail prices that now go as low as $350, has been the driving force behind the market's steady development.

"The machine must be affordable and maintenance-free," says Mitsuo Goto assistant marketing planning manager for Canon Home Office Products. "It has to strike a balance between the specifications consumers really need and affordability. For this type of machine, it's not really necessary to build something that incorporates everything you could possibly build into a machine."

Still, Canon and other manufacturers are eying areas in which they can make improvements. The next step—increasing the copying speed. Canon's top-of-the-line PC-11, for example, can



YOU CAN'T TAKE THE CALL IF YOU DON'T TAKE THE PHONE.

Let's face it, most so-called portable cellular phones are
t all that portable. They're heavy, cumbersome and quickly
come an unwelcome burden on the road.

Enter the NEC P300. It's the first portable cellular phone
it lives up to its description.

At only 7.2″ x 2.3″ x 1.0″ and a featherweight 14 ounces, it's a great travelling companion.

Yet, tiny as the P300 is, it's packed with handy features. Like a flip-up antenna, a sophisticated alphanumeric memory, a 99-number speed dial, multi-NAM capabilities—even a built-in clock.

The NEC P300. It takes the hassle out of taking the phone.

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NC Computers and Communications

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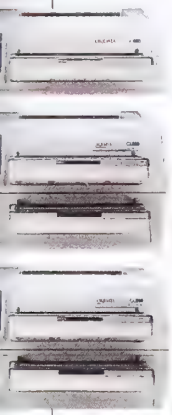
The Okidata OK
It's why we had to re-invent the laser printer.

What's the Okidata OK? It's a badge of honor that every Okidata product has to earn—a symbol of our commitment to design and deliver products that offer outstanding value and performance. Products that will not only satisfy you, but impress you.

The Laserless Printhead: Warranteed for 5 Years.

The performance promise behind the Okidata OK is the reason we had to re-invent the conventional laser printer. Our engineers frankly rejected the industry-standard page printer technology of laser beams, lenses and rotating mirrors. Instead, they designed and built a proprietary, solid-state LED printhead with no moving parts. It's a printing system so trouble-free, we guarantee our LED print element for 5 full years—making it by far the longest warranty in the industry.

But reliability isn't the only advantage our unique printhead offers. It also means a simpler design, resulting in a straight-line paper path that's far less likely to jam—even when feeding heavy stock, envelopes, or labels. And, since we build it ourselves, it means something else—a lower cost.



The OL400: The Only $999 Page Printer.

Our 4 ppm OL400, for example, has the lowest list price of any page printer on the market: only $999.* Yet that price gets you a printer that earned a PC Magazine Editor's Choice Award, with standard features—extra fonts, a full 200-sheet paper tray—that you won't find on a LaserJet® IIP selling for hundreds of dollars more. Plus a slim, low-profile design that's less bulky on a desktop.

The OL800: Twice the Output, with Room to Grow.

And the OL400 isn't the only Okidata LED page printer to offer outstanding value. For applications where greater speed is needed, the OL800 delivers 8 ppm with all the advantages of the Okidata LED printhead: straight-line paper path, 5-year printhead warranty, and a low $1499 list price.

Like all our LED page printers, the OL800 emulates HP® Series II for compatibility with most popular software; with its speed and selection of resident type fonts, it can handle the printing needs of a whole work group. What's more, as your applications change and your needs grow, a simple upgrade kit turns the OL800 into either a font-scaling OL820 or a PostScript®-compatible OL840.

The OL820: Smarter Than a LaserJet III.

The OL820 earned the Okidata OK by learning how to do font-scaling on the fly. Thanks to a special chip our engineers designed into the 820, it can solve complex type-sizing and positioning problems instantly—problems the LaserJet III needs to talk to its software to work out. That means the OL820 can deliver up to three pages of sophisticated text while the LaserJet III is still working on its first page.

And all at a price that's hundreds of dollars less than the LaserJet III.

The OL840: PostScript and Beyond.

And for applications that require full Adobe PostScript® compatibility, our OL840 delivers it in spades. It's ready to connect to any PC or Macintosh® system, or to both at the same time—then switch between systems with the push of a button.

The Okidata OK. It's a promise that makes our job—to design and manufacture a line of page printers offering both outstanding value and performance—a hard one.

But it makes your job—choosing the right brand of page printer for your application—easier than ever before.

For additional information, call us at 1-800-800-7333.

OKI OK!

OKIDATA OK!

We don't just design it to work. We design it to work wonders.™

Pictured with optional second paper tray; available on OL800, OL820 and OL840 models
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*Manufacturers suggested retail price. Dealer prices may vary.
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create 10 copies per minute. "But more speed will be necessary," adds Goto. "We also need to offer a sorting function in personal copiers."

Both Canon and Sharp, the two leaders in cartridge copier technology, see an eventual general home market developing in addition to home offices, particularly as prices come down further. "We started to approach the home market in the second half of 1989," Goto says.

More so than in other home office products category, proprietary technology has limited the number of brands and suppliers. Ricoh for example, up until a year ago, sold several personal copiers manufactured for it by Canon. But Ricoh dropped out of the market rather than compete with its own supplier. According to Data Quest, the market researcher based in San Jose, CA, Canon holds approximately a two-thirds market share, and Sharp controlls most of the balance. There's been little room for competitors, who discovered that without their own cartridge copier expertise a copy isn't as good as the original.

Other manufacturers may find an opening through the integration of home office equipment. Just about all the major manufacturers of fax machines are working on plain paper models that would employ some form of laser printing mechanism. And since virtually all fax machines can double as copiers, the development of plain paper fax machines priced under $1,000 could open up the personal copier market as well.

CALLING ALL CARS, CALLING ALL CARS

Maxwell Smart preferred his in a shoe, but most people in the 90's will carry their portable phones in their car, briefcase, purse or perhaps jacket pocket.

In the last couple of years, cellular phone manufacturers have accomplished just about everything they need to turn the cellular phone into a product for just about anyone. Size and prices have shrunk while battery life has expanded enough to bring some real utility to the product.

"All the phones are truly portable now," notes Rick Del Guidice, national marketing manager for Panasonic cellular phones. Pint- sized models from Panasonic, Motorola, Mitsubishi, Tandy, and other leading cellular phone makers will slip into a sports jacket pocket with room to spare, and keep someone in touch for a few well-timed calls.

Panasonic's new handheld phone, for example, weighs 13 ounces, and comes with a battery capable of maintaining its charge for eight hours in standby with 40 minutes talk time. An optional $80 battery for the phone, which has a suggested retail price of $1,100, doubles talk time to 80 minutes, with a 14-hour standby capacity.

Cellular phones come in three basic configurations. Handheld phones are one-piece devices that are smaller and lighter, but less powerful, than other types. Transportables are two-piece units, with the handset connected by a phone cord to the base unit. Finally, there are car models, which have the most powerful transmitting and reception capabilities. But manufacturers, based on consumer demand, are concentrating their efforts primarily on handheld and car models.

The explosion of handheld cellular was set off by gradual advances in microcircuitry that increasingly combined several circuit boards in one, smaller package. And when Motorola stunned the industry last April with its Micro TAC, a 10.7-ounce cellular phone with half the bulk of its nearest competitor, other manufacturers quickly moved to manufacture their own miniature models

Handheld cellular phones generate about 0.6 watts power output, compared with three watts for car phones and between 0.6 and 1.2 watts for

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CIRCUIT DESIGN AND PROCESSING OF SOPHISTICATED SEMICONDUCTORS

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Linear ICs

CMOS Consumer ICs

Standard Logic ICs

Semicustom ICs (ASIC, ASSP)

Discretes (TR, MOSFET, LD)

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Artificial Intelligence

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Digital TV, ID/ED/HD TV

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Hi-Fi VCR

Multi-system VCR

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AUDIO

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We have the power to innovate.

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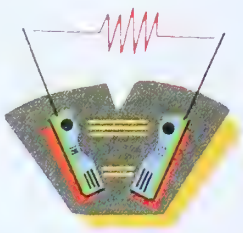
transportables. In real life terms, that means a handheld phone could suffer from poor reception or lose a signal outright in fringe reception areas, where a car phone would breeze along without a hint of trouble. That's why handheld models sell best in concentrated markets, such as New York and Los Angeles, where there are enough transmission repeaters to maintain a strong connection.



Why not boost the power output? Aside from power consumption, there's a safety issue. Cellular phones emit microwaves, and as Del Guidice points out, "You don't want more than 0.6 watts cooking next to your head." With transportables, the transmitter is separated from the handset by the phone cord, and in car models, it is typically mounted in the trunk or at least 18-inches from the driver's seat.

Still, most handheld cellular users would probably forgo a breakthrough in power output in exchange for longer battery life. While there are several promising technologies under development—including Duracell's hybrid zinc/air system, which employs a low output, long-life section to recharge a high-output segment—the dual aims of increasing battery life while holding the line on size and weight have made life difficult for design engineers.

The next great breakthrough, though, will almost certainly have nothing to do with technology or hardware. By most accounts, cellular phones will become as common as the home variety as soon as service providers bring down the cost of making a call.

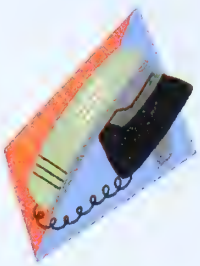
REACHING OUT FOR NEW CUSTOMERS?

The cost of cellular phone service probably won't decline until phone sales expand beyond the current business market. By most estimates, there will be somewhere in the area of 3.5 million active cellular customers around the country by the end of the year. Most of them are business users, and since the phone calls are typically charged back to a company or deducted as a business expense, there's less of an incentive to shop around or otherwise exert pressure for rate reductions. Carriers also respond that the high cost of service is designed to recoup the investment required to build a cellular network.

Even if the price of a cellular phone call holds steady, some innovative marketing programs are starting to make the services more convenient.

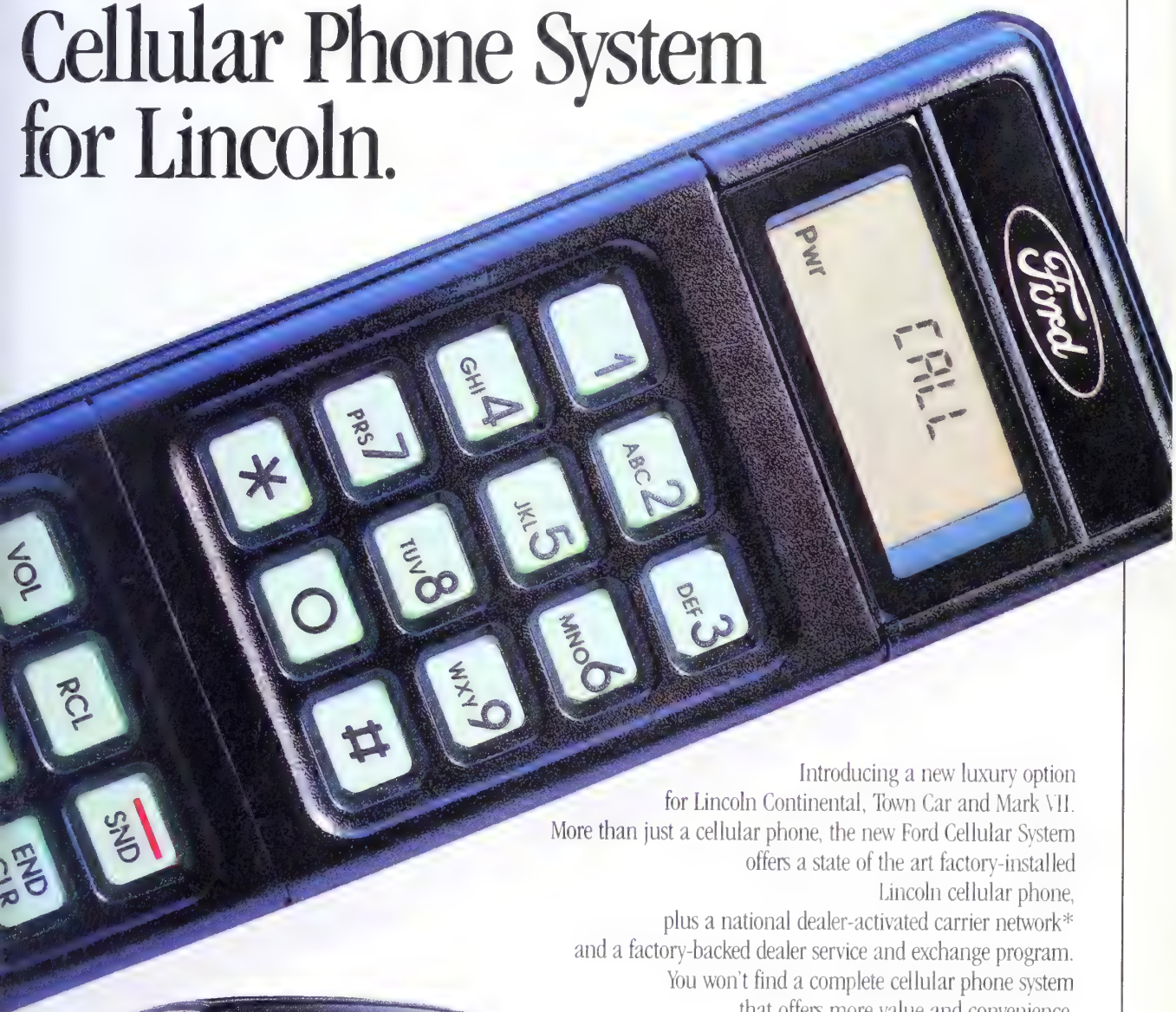
In June, for example, Ford Motor Company's Electronics division launched a nationwide network, dubbed the Ford Cellular System, that integrates service from nine carriers across the country. Ford says the carriers together offer service in all major metropolitan markets, covering 80 percent of the U.S. population. Network customers can use an 800 number to automatically subscribe to each of the participating carriers, with an automatic credit approval.

Available first with the Lincoln Town Car, the package includes a factory-installed, Motorola-built phone, priced at $799. The phone includes hands-free operation, an audio mute that cuts sound to the car stereo when the phone rings and memory redial. Coming next will be improved hands-free dialing, most likely through some form of voice recognition technology. Matsushita, the Japanese parent of Panasonic, has already demonstrated prototype voice recognition for car cellular phones. Other manufacturers are developing their own technology in this area.



In addition to the Town Car, Ford plans to offer factory-installed cellular phones in F-series trucks along with other Ford and Lincoln high-end cars. Although customers can buy the phone

It's not just another car phone. It's the new Cellular Phone System for Lincoln.



Introducing a new luxury option for Lincoln Continental, Town Car and Mark VII. More than just a cellular phone, the new Ford Cellular System offers a state of the art factory-installed Lincoln cellular phone, plus a national dealer-activated carrier network* and a factory-backed dealer service and exchange program. You won't find a complete cellular phone system that offers more value and convenience.

Ask your local Lincoln-Mercury dealer for all the details on the new Ford Cellular System or call 1-800-367-3013.

Ford
Cellular System

Not available in Canada

*Available in most areas

without the service, Don Duncan, manager of planning, marketing and business development for Ford Audio and Driver Information Systems, notes that "We give the dealer an incentive to sign-up customers, and we give [the dealer] the flexibility on how to use it." Thus, customers who take cellular service with the phone can expect a sizeable discount on the equipment.

While the network is aimed towards business customers, Duncan and other Ford executives are looking ahead to the day when a cellular phone will be standard equipment in most cars. "We're convinced that will happen by the end of the decade," says Duncan, who notes that "there are a lot of people who are buying them so they won't be stranded if the car breaks down."

STAR OF THE SHOW

Ten years ago the videodisc player was both too late and too early on the scene. Most Americans were just building their love affair with the videocassette recorder, and they showed little interest in a device that could only play back programs. At the same time there were too few titles available on videodisc, most were too expensive and the quality rarely lived up to the promise of the technology.

So much for history.

The laser videodisc player is now a must-buy for home video cognoscenti, and for several good reasons. The latest generation of players offers the performance, flexibility and overall value that product designers envisioned when they first began working on the technology.

Perhaps the single most important change in recent years is the marriage of the laser videodisc player with it's close relative, the compact disc player. Virtually all new videodisc players can play CDs as well as videodiscs—they're often dubbed "combi" players because of that—and many videodiscs, with their digital audio soundtracks, are really large CDs with video.

Both share the same basic technology. Whether sound or video, the information is embedded in the surface of the disc in the form of a series of pits of varying size, depending on the data, which are in turn "read" by an optical laser. Just as a compact disc player can access any track on a CD in seconds, or play selections in any order, a videodisc can be organized so sections—scenes in a movie, songs in a concert video—can be accessed randomly by any of the 54,000 frames of video stored on a single 12-inch disc.

While it's unrealistic to expect that an $800 combi player will offer all the features and performance of an equivalently priced CD player, it will be hard for even a true audiophile to hear the difference.

Not only do laserdiscs, at least those with digital audio soundtracks, deliver the best possible Hi Fi audio, they also display video with better clarity and overall quality than any other home video medium. Virtually all laserdisc players can display better than 420 lines of horizontal resolution. Though picture quality is determined by many factors, that's still almost twice the resolution of a standard VHS VCR and at least equal to Super VHS, the high band video recording system.

Perhaps the best indication that the laserdisc player has finally arrived as a mainstream product is the fact that at last count there were 17 brands, representing virtually every major home video manufacturer, due in stores by year's end. That's a startling turnaround from the days when first Magnavox and then Pioneer championed the format virtually singlehandedly.

As with most home video gear, prices fall between two great extremes. At the low end, Pioneer's CLD-980 and Tandy's MD-1000 combi players have a suggested retail price of just under $500. Both players sport wireless remote controls and play all disc sizes, from three-inches on up to full length 12-inch software. For

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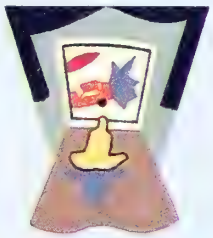
fans of the esoteric, Pioneer sells what may be the most expensive laser disc player ever built—the LD-S2, which lists for $3,500. This price buys heavy duty construction and digital time base correction (a feature normally found in professional video equipment) to eliminate even minor picture distortion, and what Pioneer claims is the world's fastest disc access time—two seconds from any point on a disc to another.



Players without software would be expensive paper weights, and the support of Hollywood studios has meant almost as much to laserdisc's revival as anything. More than 4,000 titles, everything from recent Hollywood hits to pop and classical concert videos, has been released on laserdisc. An increasing number of Hollywood studios now release their movies on laserdisc simultaneous with videocassette.

Not only has the sheer volume of disc releases multiplied exponentially in the last couple of years, but quantity is vastly improved. The smaller specialty labels in particular, such as Criterion, have dug out original master copies of classic movies to press discs that offer vivid video tracks far better than their videocassette counterparts. Criterion has also, in some cases, added lost footage, and has taken advantage of the multiple soundtracks available on laserdisc to add commentary and interviews about some of those films.

THEY PLAY TO WIN

It's strange that no video game manufacturer ever invented an electronic game of leapfrog. Video game leapfrog is, after all, what game system makers do best. The proof? The new generation of 16-bit game systems, which proves once again that if one company develops a popular and successful game system, everyone else will rev up their phasers and try to blast it off the screen.

Nintendo revitalized the video game industry in 1986 with its Nintendo Entertainment System, and an interesting array of software that outperformed most of the games that came before. NES is an eight-bit system, so called because, like many home computer systems, it processes information eight bits at a time.

In the last year, though, two competitors, Sega and NEC, have both unveiled 16-bit systems. Because they process twice the bits at the same time they actually offer exponentially far greater power. Nintendo, has already developed its own 16-bit system and video game insiders expect it to show up in stores sometime next year.

"With an eight-bit system you have 64,000 simultaneous memory addresses," explains Trip Hawkins, president of Electronic Arts, a well respected game publisher. "With a 16-bit system, it's 16 million memory addresses."

If eight bits versus 16 bits seems like just so much technobabble, it's worth considering the tangible benefits of that increased processing power—more realistic graphics, hi fi-quality stereo sound, more varied game screens, more sophisticated action and overall, more satisfying game play.

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Objects appear more realistic in large part because of the palette of 512 colors available in a 16-bit system, compared to 52 colors in an eight-bit system. Those finer gradations and tints can add the depth of field, subtle shadings and shadows that make the difference between a two-dimensional character and one that seems to leap off the screen.

All those improvements come, as might be expected, at a greater cost—about $200 for a Sega Genesis or NEC TurboGrafx-16 game system, versus half that for Nintendo's NES. Most NEC games, which come on credit card-like memory cards, are priced between $50 and $60 and some of the new game peripherals—NEC sells a $399 CD-ROM drive for its system—can add substantially to that initial investment.

Both Nintendo and Sega are working on CD-ROM drives for their own game systems, and for good reason. A CD-ROM can store 2,000 times more information than a game cartridge. "You can do memory buffering and data storage for digital audio and advanced animation," says Bob Faber, NEC assistant vice president for software. Faber says it allows game designers to add many more game screens for more complex game play, along with full-motion animation that rivals anything on TV. The CD-ROM drive, which comes with a proprietary interface for the TurboGrafx-16, will also play standard compact discs.

Faber says it took NEC game designers the better part of two years to begin mastering the art of video games on CD-ROM, but that learning process is beginning to pay off. The company has five CD-ROM game titles out now, and it expects to release 16 next year.

One example of the potential of games on CD-ROM is Sherlock Holmes: Consulting Detective. The disc contains three mysteries, in which players attempt to solve the crime in the manner of the great detective. And unlike cartridge-based games, Sherlock Holmes game play is in full motion video with characters speaking in normal, rather than computer-generated audio. The game is as much an interactive drama as it is a game, though Faber prefers a more literary view. "You play it until it's done, like a book."

The Electronic Industries Association/Consumer Electronics Group is best known as the sponsor of the International Winter and Summer Consumer Electronics Shows. Both events, after all, draw more than 70,000 manufacturers, buyers and industry related workers from around the world.

But the consumer electronics arm of the 66-year-old EIA plays a much broader role for an industry that will approach $45 billion in retail sales this year in the United States, based on steady growth in relatively new gear such as camcorders, compact disc players, and the familiar color TV set.

The EIA/CEG's statistical services, chart the sales of everything from home computers to car stereos on a weekly basis, in order to provide regular "snapshots" of industry trends and developments. The organization also works with the Department of Commerce to track consumer electronics imports and exports.

The Washington-based association, has developed into a powerful information and lobbying source. Revenues generated by the two Consumer Electronics Shows fund those activities.

In 1991, for example, the EIA/CEG's "We Want You Listening For A Lifetime" campaign will promote the safe use of audio products. The associations consumer pamphlets provide advice on everything from what consumers should know before buying a home computer to when they should consider a service contract.

As an engineering standards-setting body, the EIA is actively involved in the development of a home automation standard for the U.S., and is working with the Federal Communications Commission and other groups to develop a High Definition TV system.

Art Direction by Platinum Design, Inc., NYC. Illustrations by Sergio Baradat. Text written by Martin Levine, a writer who specializes in electronics and high technology.

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ufacturing new products made specifically for the U.S. market. And many of Matsushita's American factories are even building products for export to Japan and other countries.

The business community sees Matsushita's U.S. operation as a success. But even more importantly, so do the local communities that are now home to Matsushita.

COMMUNITY UNITY

Matsushita also helps build strong communities. Towns with caring, concerned individuals. To encourage this, Matsushita donates equipment to local organizations, provides facilities for town use, and has set up a $10 million fund to help improve education in primary and secondary schools. Matsushita even endows professorships at Harvard and MIT.

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Building factories and R&D centers that help people build better lives is just one example of what Matsushita Electric means by the term Human Electronics. Every day Matsushita dedicates its vast resources to researching, developing, and marketing products that make life richer, safer, and more comfortable. In the U.S. these products are sold under the brand names Panasonic, Technics, and Quasar. In 1989, Matsushita's worldwide consolidated sales volume surpassed $37.7 billion. All a direct result of a single-minded philosophy: Don't create technology for technology's sake, but for man's sake.

MATSUSHITA ELECTRIC
PANASONIC TECHNICS QUASAR

Travel

SKI RESORTS THAT AREN'T SKY-HIGH

The 1980s saw a boom in skiing, in ski resorts—and in the cost of ski vacations. But in 1990, with the economy on the skids and fuel prices pushing airfares ever higher, resorts are fretting that mild weather may not be the only problem they face. While nobody is giving rooms away, many centers are offering a variety of discounts and deals, especially for skiers whose travel plans are flexible.

The easiest way to save money is to ski before or after Christmas or late in the season, when many resorts offer substantial discounts. A couple visiting Vail, Colo., for Christmas week would pay $2,500 just for a room and lift tickets. The same package costs 25% less in January and 44% less before Dec. 22. Aspen, Vail's pricey archrival, has condo-and-skiing packages at $83 per person per night—in January and April.

BULK PRICE. East Coast skiers might consider abandoning the Rockies this year in favor of a driving trip to New England. In the East, the most attractive savings are often found in three- or four-day packages. As for Western resorts, flying into one may be less costly than you think. You can often save by calling a ski center's toll-free reservation number and inquiring about packages that include airfare. Many places buy plane tickets wholesale and then pass the savings on to you. Similarly, a growing number of resorts, including Idaho's Sun Valley and Colorado's Aspen and Steamboat Springs, offer direct flights from major cities. For example, you can now fly an American Airlines 727 straight to Crested Butte, deep in the heart of the Colorado Rockies, from Chicago in about two hours, half the time you'd spend if you connected through Denver.

HOT LUNCH: SOUTHWESTERN CUISINE AT TAOS SKI VALLEY IN NEW MEXICO

Such flights are always time-savers, and sometimes they're money-savers as well, especially if purchased as part of a package. Since most resorts constantly add these special discounts without heavy promotion, call around and compare deals.

To get the most for their buck, travelers should concentrate on resorts that offer plenty to do besides ski. With today's high-speed lifts, many folks have had enough skiing by early afternoon, anyway.

Finding something to do should never be a problem at Stowe, Vt. (800 24-STOWE), which has dozens of inns oozing New England country charm. You can while away hours browsing through its many antique shops. For dinner, try the Trapp Family Lodge, still run by the family of *The Sound of Music* fame. Stick around for the folk singing afterward.

ICE SCULPTURE. Farther north, Quebec's Mont-Sainte-Anne (800 463-1568) offers the lure of a European vacation at a lower cost. Besides extensive Alpine trails, it boasts more than 200 kilometers of cross-country skiing, sleigh rides, and a large fitness center. Moreover, the Gallic attractions of Quebec city are a mere 30 minutes away. Its Winter Carnival, Feb. 4-14, features parades, massive ice sculptures, and some of the best French food in North America.

Maine's Sunday River (800 543-2SKI) is a perfect example of how ski resorts have started to cater to those who don't ski well—or at all. T year, Sunday River is i ing its traditional ski with a more flexible pro with lessons offered co ously throughout the Better yet, no class wil more than six student ginners pay $35 for a lessons and receive a f fund if they can't ski in dently by dusk.

If you're adventurous for Killington, Vt. (80

GETTING THE JUMP CLEAR OF THE PEA

DOWNHILL DEALS: A SAMPLER

Resort	Package*
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STRATTON MOUNTAIN, VT. 800 843-6867	**Price:** $339 for 3 nights **When:** Midweek throughout season **Includes:** Lift ticket, lunch
CRESTED BUTTE, COLO. 800 544-8448	**Price:** $606 for 5 nights **When:** March **Includes:** Direct flight from Dallas or Chi
TAOS SKI VALLEY, N.M. 800 992-7669	**Price:** $750 for 7 nights **When:** Now till Dec. 22; Mar. 31–Apr. **Includes:** All meals
STEAMBOAT SPRINGS, COLO. 800 922-2722	**Price:** $775 for 7 nights **When:** February **Includes:** Direct flight from Newark, N.J

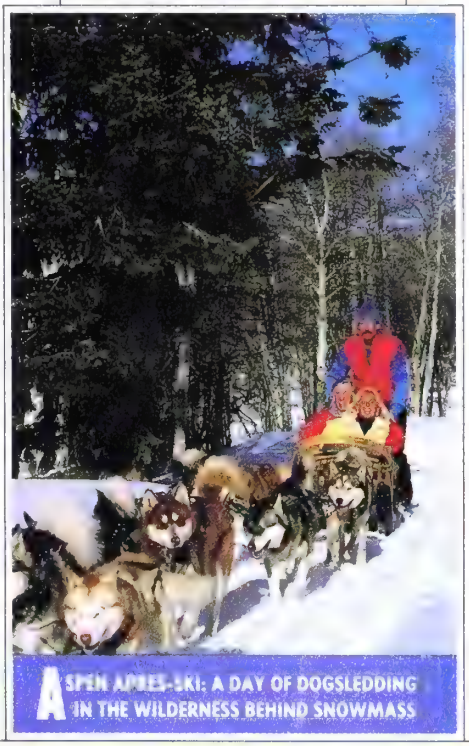
*All prices per person

he East's largest ski and sign up for its rk" ski school. This l method—a favorite est Hemingway—is a ation of cross-country vnhill skiing. Then you n up for a telemark f the Vermont back-. You can also learn snowshoe. The best visit may be late Janu-nen Killington will of-ampagne Ski Weeks, include dine-around es at restaurants, ki parties, and fire-displays.

RIDE. In the Rockies, (800 525-2257) has d as the nation's fa-destination for serious Still, consider staying by Beaver Creek, also Vail Associates. For the town catered pri-to those who owned its palatial houses or iniums. But with six dges opening this win-coming into its own as t with the charm Vail efore the crushing arrived. Beaver Creek its own downhill skiing network of cross-country trails with spectacular vistas. After dark, you can enjoy French country cooking at Mirabelle's or take a sleigh ride up the mountain to beautiful Beano's Cabin, which features hearty meals and entertainment for $69 a head.

Aspen (800 262-7736), the resort of the stars, is unquestionably the best spot for gourmet dining. The hottest newcomer this season is the Little Nell restaurant, at the base of Aspen Mountain, which features American Alpine cuisine: Rocky Mountain trout stuffed with fennel potatoes, roast venison with juniper-berry sauce, and wine from one of Europe's Alpine villages. On another day, take a dogsled ride into the wilderness behind Snowmass, then dine at Krabloonik, which serves an amazing collection of game, including caribou.

Vail and Aspen aren't all glitz. From either resort, you can sample one of North America's premier wilderness escapes: backcountry hut-to-hut skiing offered by the 10th Mountain Trail Assn. After skiing six or seven miles through scenic terrain, you'll spend the night at a rustic cabin with about 15 other skiers. The trail network runs over 300 miles. Unless you're an experienced backcountry skier, reserve a guide when you call to book your spot (303 925-5775).



ASPEN AMBLES-SKI: A DAY OF DOGSLEDDING IN THE WILDERNESS BEHIND SNOWMASS

PHOTOGRAPHS BY VANDYSTADT ALLSPORT/GREG ADAMS

PRIVATE CHEF. At the opposite extreme, Utah's Deer Valley (800 424-DEER) will pamper you shamelessly after a day swooshing through its powder. Its Stein Eriksen Lodge offers the ultimate in spa facilities, luxurious accommodations, and personal service—including chefs who will cook dinner just for your party—all in a stunning mountain setting. From this base, you can ski at several other nearby areas, including Park City, home of the U. S. Ski Team.

British Columbia's massive Whistler-Blackcomb area (800 634-9622), a two-hour drive from Vancouver, features skiing built around the steepest vertical drop in North America. To get an even better fix on the breathtaking backcountry, take a helicopter or snowmobile tour. Visit during the Jan. 12-20 Winter Carnival, and you'll also enjoy World Cup skiing, a costume ball, and great nightlife.

In total contrast to Whistler—both in climate and culture—is New Mexico's Taos (800 992-7669). Although you can lodge at the mountain, you'll pick up far more Southwestern ambience by staying in the town itself, about 20 miles away. In Taos, you can spend hours wandering through its dozens of art galleries. You'll also want to visit the Taos Pueblo, the nation's longest continuously inhabited Indian pueblo, or take a ride on horseback across the sacred land of the Indians. While the ski area will cater picnics on the slopes, the Southwestern cuisine at such places as Brett House and The Apple Tree is unbeatable. And Sante Fe can be visited in an easy day trip. In fact, there's so much to do, you might even forget that you actually came to ski. *Bill Symonds*

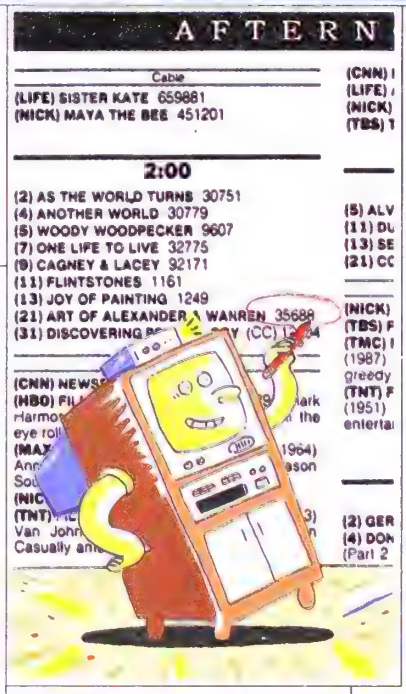
Gadgets

NOW, IT'S NO SWEAT TO SET THE VCR

It has been 15 years since the VCR was invented, yet most Americans still haven't gotten the hang of taping shows when they're away. But now there's help: a little gizmo called VCR Plus from Gemstar Development.

Hitting stores this month, the device is yet another remote control to add to the pile of zappers that already populate your living room. But it has the power to take over all the programming chores on your VCR and cable box. The key is the program code—a multidigit number unique to each show—which many newspapers, as well as some *TV Guide* editions, are adding to their TV listings.

Say you want to record the



HBO 3:00 a.m. movie. Just look it up in the TV listings, punch in the code number printed next to its name, and forget it. You no longer have to program date, channel, and start and stop times into your VCR. At 2:59 a.m., VCR Plus wakes up, turns on the VCR, and records the movie. It will also tune the cable box to the right channel—which lets cable subscribers tape subsequent programs on different stations.

As with many trailblazing devices, it still has bugs: The $59.95 gadget has to be programmed for your VCR and cable-box brands, and cable subscribers also have to reset channels—tasks as complex as programming the VCR itself. You have to do this only once, but don't count on the 800 number to help: It's usually busy.

VCR Plus can't perform all its tricks with manual cable boxes. And it won't work with some Sony and Mitsubishi VCRs, a defect Gemstar promises to fix by March. Still, it's dandy for the technologically illiterate—and lovers of remote-control gadgets. *Larry Armstrong*

Worth Noting

■ **JUNGLE BELLS.** When order greeting cards, an motif jewelry, or other from the World Wil Fund's holiday catalog 833-1600), most of the ceeds help save endang species and their habita

■ **SAFE AT HOME.** C Bank's Morgard plan 423-4021) offers mortga surance for its borro who get laid off. Mo premiums are added to mortgage payment. If lose your job, the policy the benefit directly Chase—up to $2,500 a m for as long as a year.

■ **TOASTING 2000.** Lay hogshead (30 cases) of Aberlour single-malt S now for $2,950, and you saving $16 a bottle of day's $24 retail price. whisky will arrive by Year's Eve, 1999, when be properly aged and m worth more (212 725-91

Smart Money

UTILITY FUNDS: INSULATION AGAINST A RECESSION?

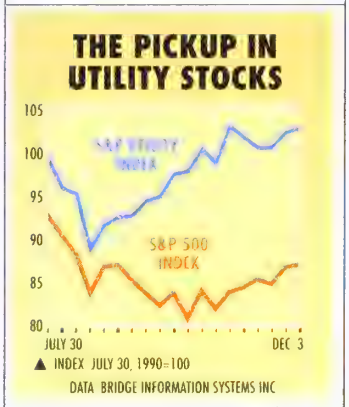
Utility stocks have long been favorites in recessionary times. Consumption may be less conspicuous, but people are not likely to go without heat, electricity, or the phone. Picking stocks is tough, since it means evaluating the regulatory climate in a utility's region and its exposure to the Clean Air Act. A utility mutual fund can hedge your bets.

No one is saying the funds, whose loads range from 1% to 5%, will chart stellar returns in an economic downturn. But they are relatively stoic in the face of adversity. While the average total return on equity funds was –14.49% for the third quarter, it was –6.49% for utility funds. In the 1981 recession, the S&P Utility index was up more than 20%, vs. the S&P 500's 3% drop.

'STEPPING-STONE.' The good news: The average electric-utility yield is 7.2%, compared with 3.38% for the S&P Industrials, a 400-company index. Small wonder that, as interest rates fall, the interest in utilities rises.

In fact, the aim of two of the best-performing funds is to double the yield of the S&P Industrials. Federated's Liberty Utility Fund boasts a current yield of 7.63%, while the Fortress Utility Fund's is 8.93%. "Our funds are sold more as a stepping-stone for people who had CDs and want to get into equities but not give up income," says portfolio manager Christopher Wiles. Two-thirds of the fund is in utilities; the rest is in convertible bonds and liquid option yield notes.

Other funds prefer more straightforward debt. Shearson Lehman Brothers Utilities Portfolio has a yield of 7.37% and one of the only positive year-to-date returns around: 1.81%. Much of that success is due to the fund's investing 30% to 40% of its $650 million assets in long-term utility bonds. "With the income from the bonds, we can buy good-quality utilities with sound financials," says Jack Levande, the fund's portfolio manager. don't have to buy comp with higher yields tha flect near-term problem



The granddaddy of u funds is the Franklin ties Fund, yielding 7.10 overall strategy is to growth utilities with able regulatory env ments in growing reg economies. The fun weighted heavily in the belt. It's also heavy in tries: They make up 9 the $832 million fund.

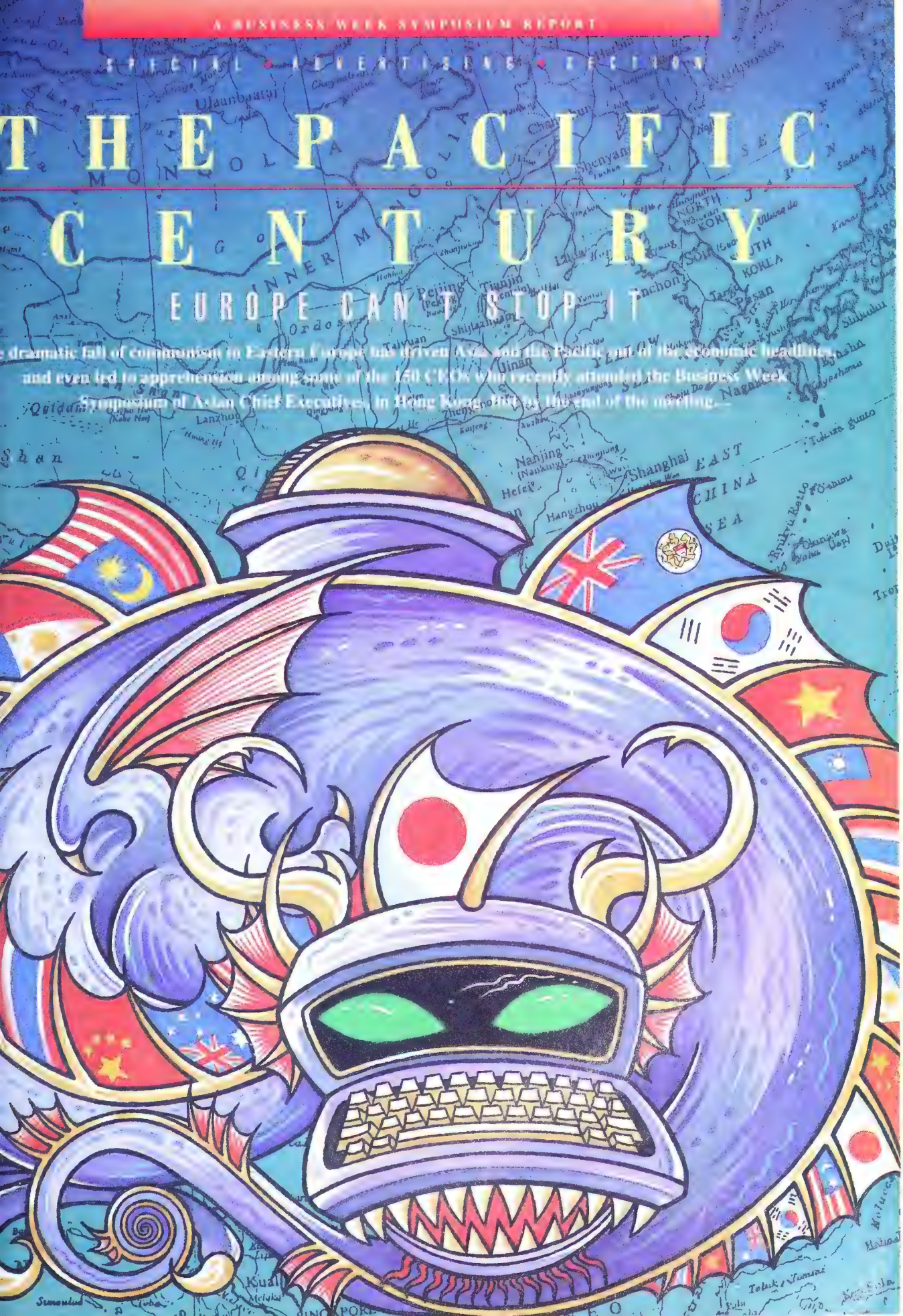
Despite their reput for safety, utility aren't all stodgy. Along the conservative Fi Utilities Income Fund, Berro manages what might find an oxymoro aggressive utility fun delity Select Utilitie make bigger bets on ir ual companies and hav of a bias on income says. Last year, it rack a 39% total return, staid cousin's 20%. B no income play: It 1.46%. *Suzanne W*

SPECIAL • ADVERTISING • SECTION

THE PACIFIC CENTURY

EUROPE CAN'T STOP IT

The dramatic fall of communism in Eastern Europe has driven Asia and the Pacific out of the economic headlines, and even led to apprehension among some of the 150 CEOs who recently attended the Business Week Symposium of Asian Chief Executives in Hong Kong. But by the end of the meeting...



THE PACIFIC CENTURY

EUROPE CAN'T STOP IT

The consensus was that while Europe may win more headlines for a time, Asia remains the region offering the greatest growth potential. "The focus of the world economy is shifting back to the Pacific Rim," said Timothy Collins of DRT International. Six of the world's ten largest ports are still in Asia, together with the six largest banks. The combined GNP of the region equals that of Europe, and is three-quarters the total for North America.

Most important, Asian dependence on the US market is fading. Intra-Asian exports today make up over 40% of the total external trade of Asian nations. By the end of 1999 trade among Asian countries may reach 55%. Sea-Land Service Chairman and CEO Alex Mandl noted that this regional trade is growing at twice the pace of trade with North America, and four times as fast as Asian trade with Europe.

All of this is occurring in spite of significant political, cultural and infrastructural barriers to regional cooperation. There are at present no formal structures to promote regional investment and trade. Even the membership of ASEAN, the six-member Association of Southeast Asian Nations, lacks a clear framework for the promotion of trade. And yet the intra-regional trade of Asia is greater than that of Europe, where myriad trade pacts have been on the books for decades.

Timothy Collins, Partner, Deloitte & Touche

"The focus of the world economy is shifting back to the Pacific Rim"

◆

CAPITAL RICH

It is investment that drives this rapid expansion of Asian trade. The '80s saw an enormous surge of capital move into the region, with Japan a principal source. Japanese investment has grown on average 50% per year in all of the four newly industrialized economies, or NIEs—Hongkong, Korea, Singapore, and Taiwan. Yen flow into the ASEAN 4—the largest ASEAN economies (Indonesia, Malaysia, the Philippines, and Thailand), has increased on average 100% per annum over the same period.

The cause and result of this capital infusion has been a shift of manufacturing capability from Japan to the rest of Asia. Along with this has come an immense technology transfer—valued at perhaps $1-billion, most of it linked to manufacturing. In the view of Akira Takahashi, Managing Director of Sanyo Investment Research, Asia outside Japan has become the "workshop of the world." Immense percentages of the global production of many "Japanese" manufactured goods actually flow from other Asian countries.

If Japanese investment began the boo intra-regional trade, it is the NIEs, espec Taiwan and Hongkong that have propelle Taiwan's external Asian investments were $60-million dollars as recently as 1986. current figure of $3.2-billion is a 53- increase.

NEW NIES... AND CHINA

Southern China may win what Prudential Chairman Dr. Victor K. Fung calls "the fig be fifth"—the fifth NIE. Southern Ch Guangdong province, Hongkong, Macau the global Cantonese ethnic diaspora, are ing economically to create what Hongkon Chamber of Commerce president John K has named the Cantonese economy—65 lion people with a GDP of $80-billion (1 "This is the first NIE with no political au my," says Kamm, who predicts a simi potent expansion of the Taiwan econor "include" Fujian province, China.

Part of this international framework ev ally makes its way onto the balance she Beijing. Though still lagging behind the r the region, China's GNP nonetheless incr 150% during the period 1979-1988. Chinese trade with the Asia-Pacific r reached $48-billion in 1987, and $68-bill 1989—a 42% increase in two years, and 6 of total Chinese external trade.

The stated intention of the governmen further open the economy. Foreign inves is to be the engine driving a doubling of by the end of the century. Polls taken a Business Week Symposium indicated th Asian CEOs present are optimistic abo economic future of China. 64% see signi economic strengthening of the nation d the next five years, and 91% during the c ten, revealing the great majority differ o their perception of how soon China will to its earlier pattern of speedy growth.

PREPARING FOR REGIONAL GROWTH

Asian regional growth and integration hav nificant implications for corporate ma ment. Sea-Land's Mandl, for example launched a $385-million expansion firm's Hongkong container freight st based on projections of trade and manuf ing patterns. Already the world's larges operation, two years from now the facilit triple in size. "More large companies a

THE PACIFIC CENTURY

EUROPE CAN'T STOP IT

global manufacturing facilities," Mandl
ed, "and those companies will require
s and support services to match their
pproach."
er businesses require similarly large
ents to keep pace with the change and
occuring in the Asia-Pacific region.
sian and Asia-active firms are funding
ffing their expansion plans through
ment of alliances, marketing or techni-
mergers, and acquisitions.
International's Collins, author of a
led *Teaming Up for the '90s,* cites the
of his own firm—the product of the
Haskins & Sells/Touche Ross merger.
noted that while Touche Ross was very
in Japan thanks to its longstanding
su linkage there, Deloitte was more
l in other parts of the Asian region. The
s created by their merger are reflected
ew company name: DRT stands for
Ross Tohmatsu.

GIANTS EMERGE

ality of the Asian economy is also
rated by the emergence there of new
te giants able to compete not only
ly, but globally. These companies are
lass competitors, meeting—often set-
ternational standards of quality, tech-
price, and profitability.
van's Acer Incorporated is one exam-
unded in 1976 with $25,000 and 11
ees, Acer did not even enter the PC
until 1983, yet just six years later the
produced the world's fastest PC and
their one-millionth machine. Today
a $1-billion company with more than
aff, manufacturing in four countries
ng the US), with R&D facilities in both
and California's Silicon Valley, and 18
offices.
le Acer started out providing OEM
l equipment manufacture) production
s for other, more familiar corporate
oday ICL, Texas Instruments, and oth-
equipment for Acer on an OEM basis.

E COME THE ASIAN BRANDS

g an internationally accepted brand
one of the greatest challenges facing
anufacturers, according to Acer chair-
l CEO, Stan Shih. Even if a firm is
d in terms of price, quality, and tech-
without its own internationally-accepted
me, global retail sales may be elusive.

Alex Mandl, Chairman and CEO, Sea-Land Service Inc.

"Today's global manufacturing requires a new, global approach to logistics and support services"

Stan Shih, Chairman and CEO, Acer Incorporated

"Gaining worldwide brand awareness and brand respect: this is Asia's greatest commercial challenge."

Shih explains that Asia still bears an image burden related to the simplicity and low quality of products produced in Asia 40 years ago. "A bankrupt Silicon Valley company has a better image than the strongest firm in Taiwan," Shih observes ruefully.

In order to build his own firm's reputation, Shih established a global Acer constituency by selling equity to international financial institutions. He opened his own high technology R&D centers in prominent locations. He established strategic alliances and joint marketing agreements that got lots of attention. He made some acquisitions of well-known firms. Internally, Shih did some things that were very unusual for an Asian firm: he placed 50% of the firm in employee hands, and established 26 internal publications to create an environment of belonging and commitment, enveloping employees, shareholders, customers, and investors. Shih even changed the company name—Acer used to be called Multitech.

A SELF-FUNDING ASIA

The intra-Asian investment flows which move from Japan and the wealthier NIEs to other parts of the region are part of an emerging regional pattern of capital flows that is significantly different from that of the past. Dr. Amnuay Viravan, former Thai Finance Minister and now chairman of Bangkok Bank, explained that with the US mired in its budget deficits and western Europe increasingly drawn toward investment in the revitalization of eastern Europe, Asia must anticipate a need to be financially self-reliant.

The money to achieve this is already present in Asia. With NIE savings rates as high as 35%, a Japanese surplus of $80-billion, Japanese external assets of $400-billion, and Taiwanese reserves of $70-billion, Japan and the NIEs have the resources to be bankers not only to Asia, but to the entire world.

JAPAN-ASIA ECONOMIC RELATIONS

Japan's future role in Asia and the world was addressed by Dr. Noritake Kobayashi, Dean and Professor at Keio University Graduate School of Business Administration, and Director of Mazda Motor Corporation. He places Japan's relations with the world in a cultural context, suggesting that the country must establish a more balanced relationship with its Asian neighbors. Achievement of this goal will require not only continued industrialization of the region, but also the shedding of attitudes

THE PACIFIC CENTURY

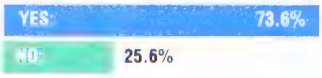
EUROPE CAN'T STOP IT

ASIAN CHIEF EXECUTIVE OPINION

Of the 150 CEOs in attendance at the Business Week Symposium of Asian Chief Executives, approximately 85% were from the Asia-Pacific region, including Australia, China, Hong Kong, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand. BUSINESS WEEK publisher John W. Patten led a delegation of US top management, which comprised the remainder of the audience.

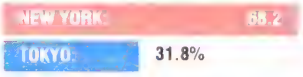
Here is a sampling of the CEOs' views as tabulated by the in-hall Quick Tally audience response system:

Is the US economy currently in recession?



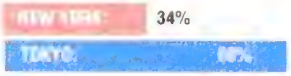
Is the world heading into recession?

What is the world's most important financial center today?



(No other bourse mentioned)

Which will be the most important financial center in the year 2000?



(Again, no other bourses were mentioned)

Asked if they "felt comfortable" about Japan taking on an increasingly powerful role in the Asian region, 46.3% responded they did, 37.7% did not. The rest claimed neutrality.

Shiro Uramatsu, Senior Advisor to the Board, Sanyo Securities Co., Ltd.

"Japanese investment in the newly industrialized and ASEAN countries will continue to grow in the 1990s."

◆

left over from the era of foreign dominat "Japan believes," Dr. Kobayashi says, "tha Asia-Pacific region has the potential to bec a locomotive for the world economy in the century. But the economy in the driver's sea the regional economy must be younger Japan's" is today.

Sanyo Securities' senior advisor to Board, Shiro Uramatsu, sees Japan's role source of capital, especially as the funde government borrowings within the reg Sanyo Securities' own role is an indicatio what the Japanese financial institution of future must undertake to fulfill its regional Its branch operations are multiplying at a rate. Within 5 years Sanyo Securities will 100 domestic and 15 international office anticipation of its growing role, the comp has constructed the world's largest compe ized share trading room, and is investing hev ly in staff recruitment and education, ge ready for a major role in the funding of Asi

■ BEFORE THE PACIFIC CENTU THE '90s

While Asia has the financial, technological human resources to be a self-sustaining reg economy, its development could be set bac uncontrollable factors in the global econo political, and security environment.

Former US Defense Secretary Frank Car warned Asian CEOs at the Business W Symposium that their region should be wa euphoria over the end of the Cold War. "A n polar world," he said, "is not necessarily t than bipolar confrontation." Carlucci say '90s will be shaped by unpredictability, reg disputes, and a growing global interdepend

Steven Schlossstein, author of *Trade* and *The End of the American Century*, elab ed on Carlucci's theme, concluding that i face of worldwide blocism, values conf protectionism, latent nationalism, and bio- ronmental concerns, Asia will certainly ha problems in the decade ahead. But Asian culties will be small compared to tho Europe, where Schlossstein sees a danger c out systemic collapse.

If Asia is personified in the "little drag says Schlossstein, European countries shou depicted as "dancing dinosaurs. Foreign— p cially American—investors, may soon dis that a dollar's worth of hope invested in E Europe tomorrow will never pay the return a dollar's worth of actual opportunity invit in East Asia can pay today." ■

x to Companies

gives the starting page for a story or fea- significant reference to a company. Most are indexed under their own names. listed only in tables are not included.

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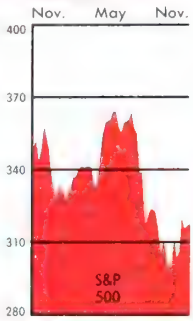
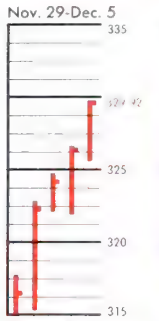
STOCKS

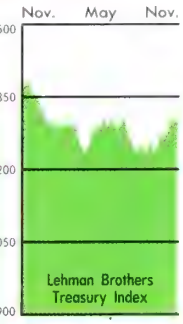


52-week change **–5.3%**

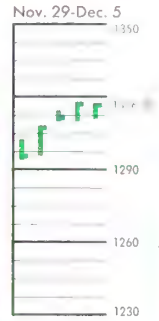


1-week change **+ 3.8%**

BONDS

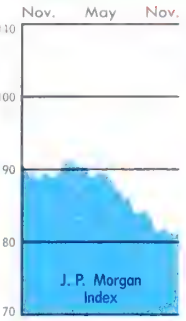


52-week change **–3.8%**



1-week change **+ 1.1%**

THE DOLLAR



52-week change **–8.6%**

1-week change **+ 1.5%**

KET ANALYSIS

CKS	Latest	% change Week	% change 52-week
ES INDUSTRIALS	2610.4	3.0	–4.6
ANIES (Russell 1000)	171.0	3.9	–6.6
MPANIES (Russell 2000)	130.7	3.7	–22.6
ANIES (Russell 3000)	180.6	3.9	–7.6

STOCKS	Latest	% change (local currency) Week	52-week
FINANCIAL TIMES 100)	2152.6	0.4	–8.5
KKEI INDEX)	22,193.7	–3.7	–41.1
(TSE COMPOSITE)	3226.5	2.6	–18.4

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.2%	7.3%	7.9%
30-YEAR TREASURY BOND YIELD	8.3%	8.4%	7.9%
S&P 500 DIVIDEND YIELD	3.7%	3.7%	3.2%
S&P 500 PRICE/EARNINGS RATIO	15.1	14.6	14.4

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	330.2	331.8	Negative
Stocks above 26-week moving average	27.2%	22.0%	Neutral
Speculative sentiment: Put/call ratio	0.42	0.49	Positive
Insider sentiment: Vickers sell/buy ratio	0.38	0.39	Positive

STRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

EK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
ILDING	25.0	–35.6	KAUFMAN & BROAD HOME	32.6	–45.5	7⅝
MANUFACTURING	20.9	–18.9	RUSSELL	28.7	–6.4	21⅞
Y APPAREL RETAILERS	16.9	3.2	GAP	23.4	31.7	34¼
	16.7	–7.2	NIKE	24.3	26.0	35¾
	16.7	–23.3	GOLDEN NUGGET	30.0	–30.4	19½
EK LAGGARDS	**% change 4-week**	**52-week**	**Weakest stock in group**	**% change 4-week**	**52-week**	**Price**
STANCE TELECOMMUNICATIONS	–17.9	–37.7	MCI COMMUNICATIONS	–41.2	–58.2	18¾
NING	–10.0	–24.8	ECHO BAY MINES	–31.9	–58.7	7¾
GAS DRILLING	–6.6	6.4	ROWAN	–13.5	20.0	11¼
ON CONTROL	–6.4	–9.8	BROWNING-FERRIS	–27.3	–44.5	22
E TOOLS	–4.6	–45.4	ACME CLEVELAND	–6.5	–44.2	5⅜

AL FUNDS

MORNINGSTAR INC.

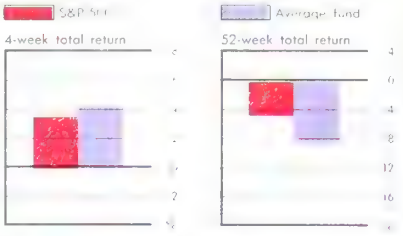
otal return	%
GROWTH	19.2
SELECT COMPUTERS	14.0
ETIME EMERGING GROWTH	13.5

otal return	%
SELECT BIOTECHNOLOGY	37.9
STRATEGIES	28.0
SELECT HEALTH CARE	21.6

LAGGARDS

Four-week total return	%
DFA JAPANESE SMALL COMPANY	–16.8
STRATEGIC SILVER	–11.6
SHERMAN DEAN	–9.4

52-week total return	%
SHERMAN DEAN	–49.2
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–46.9
PRUDENT SPECULATOR LEVERAGED	–44.9



TIVE PORTFOLIOS

DATA RESOURCES INC.

ounts
the present
10,000
ne year
:h portfolio

s indicate
al returns

Money market fund
$10,683
+0.14%

Treasury bonds
$10,314
+0.82%

U. S. stocks
$9,528
+2.59%

Gold
$9,124
–1.62%

Foreign stocks
$8,075
4.71%

his page are as of market close Wednesday, Dec. 5, 1990, unless otherwise indicated. Dec. 4. Mutual fund returns are as of Nov. 30. Relative portfolios are valued as of Dec. 4. A more
s include S&P 500 companies only; performance and share prices are as of market close detailed explanation of this page is available on request.

TO REVIVE AMERICA, LINK SCHOOL AND SKILLS

As America battles to remain competitive in the global marketplace, the single most important determinant of economic growth is people. What a waste it is that the country consigns half its high school students to a vocational dustbin (page 60).

There are 20 million Americans between the ages of 16 and 24 who don't go to college, yet our educational system is geared to produce candidates for college. Part of the problem is a career-illiterate cadre of teachers who give short shrift to the value and dignity of blue-collar work, while knowing little or nothing about it. The result is that for the million-plus high school graduates who don't go on to college each year, there is little link between schools and work.

The U. S. needs a national system to help noncollege youths acquire skills and get channeled into stable, well-paying jobs. This notion is advocated by groups in and out of government, including the Labor Dept., the National Alliance of Business, and the AFL-CIO. Some experts advocate an Americanized version of the well-known German national apprenticeship program, which accounts for more than 60% of all German employees. The nonpartisan Commission on the Skills of the American Workforce has broadly outlined what a U. S. apprenticeship program might look like.

To ensure that high school students acquire basic academic skills, all students would be tested no later than age 16 on their "ability to read, write, compute, and perform at class levels." Centers would be set up to help dropouts and those who fail the test, while the rest either go into university preparation or into an apprenticeship program, always retaining the option to switch from one to the other.

The student who decides on vocational study continues two to four more years of schooling, combining on-the-job training in a part-time job with classes at high schools, community colleges, and technical schools. Graduates would be certified in one or more skills based on nationwide standards for occupational skills set by a national board. But little if any of this can be accomplished by government decree or federal legislation. When the national debate on competitiveness begins, both business and labor will have to agree on any national apprenticeship program for it to be workable. Only then can it be put in place with the help of educators and politicians.

IN GERMANY, A MANDATE FOR THE MIDDLE GROUND

Chancellor Helmut Kohl's election victory is a historic event by any measure. The first democratic Germany-wide elections since 1932 complete a year that also witnessed the disintegration of the communist empire in East Europe. And they close the curtains on a somber era that opened with Hitler's rise to power in the 1930s.

Voters, however, didn't give Kohl the absolute ma for which he campaigned. Kohl's Christian Demo Union (CDU) won about 44% of the votes cast, just as it the last West German elections in March, 1987. Th winners in the election are the Free Democrats (FDP), tion partners in Kohl's government. The FDP's 11% vote, up from 9% in 1987, gives senior FDP politicia Foreign Minister Hans-Dietrich Genscher well-des credit for his role in reunification. It can also be se evidence that many German voters were leery of ha one man too much power as the new government gr with the bankrupt Eastern economy and the prospe rising unemployment, soaring budget deficits, and pr on social services and housing.

The FDP insists that a planned constitutional chang mitting German troops to be used outside Europe sho limited strictly to U. N.-sanctioned operations. The oth price for remaining in the coalition: liberal tax incentiv investment in what was East Germany. Once before, w pulled out of a coalition with Socialist Chancellor H Schmidt in 1982, the FDP acted to preserve a broad con in the middle ground of German politics. That cons firmly rooted in a belief in the value of a social-m economy, is essential if Germany is to traverse the to to 10 years needed to rebuild East Germany and stay

THE FED MUST REINFORC ITS SIGNAL TO THE BANK

The Federal Reserve Board's elimination of the r requirement on certain types of bank deposits logical and needed easing of monetary polic action addresses two crucial problems in the banking s that will have positive impacts on the U. S. economy: shore up bank profits and encourage banks to lend

The Fed is sending banks a signal of support that s O. K. to lend more (page 50). And it has given the more to lend by freeing up $13.6 billion in previous funds. But the move must be reinforced, or it is lik have only a small impact on new lending. The ne should be a clear signal that banks will not run in regulatory troubles just because they make new o Banks have created the present credit crunch by ho back on making loans because they face tighter reg a and the need to address higher capital requirements, in premiums for deposit insurance, and fading profit

The Fed must also move to push interest rates further. The recession of 1990 is already in train, a data for October and November show that the econ sinking much faster than economists had expected. A quarter-point cut in the federal-funds rate by year 7¼%, is urgent. Coupled with the lower reserve r ments, a lower funds rate would provide incentive to l prime rate, which has been stuck at 10% despite tw ter-point cuts in the federal-funds rate since late O These extra moves are needed to reverse the contrac spiral in bank credit that has been worrying Fed Ch Alan Greenspan.

THE DECLINE AND FALL OF LAVENTHOL & HORWATH PAGE 54

NA
f COMEBACK
PAGE 34

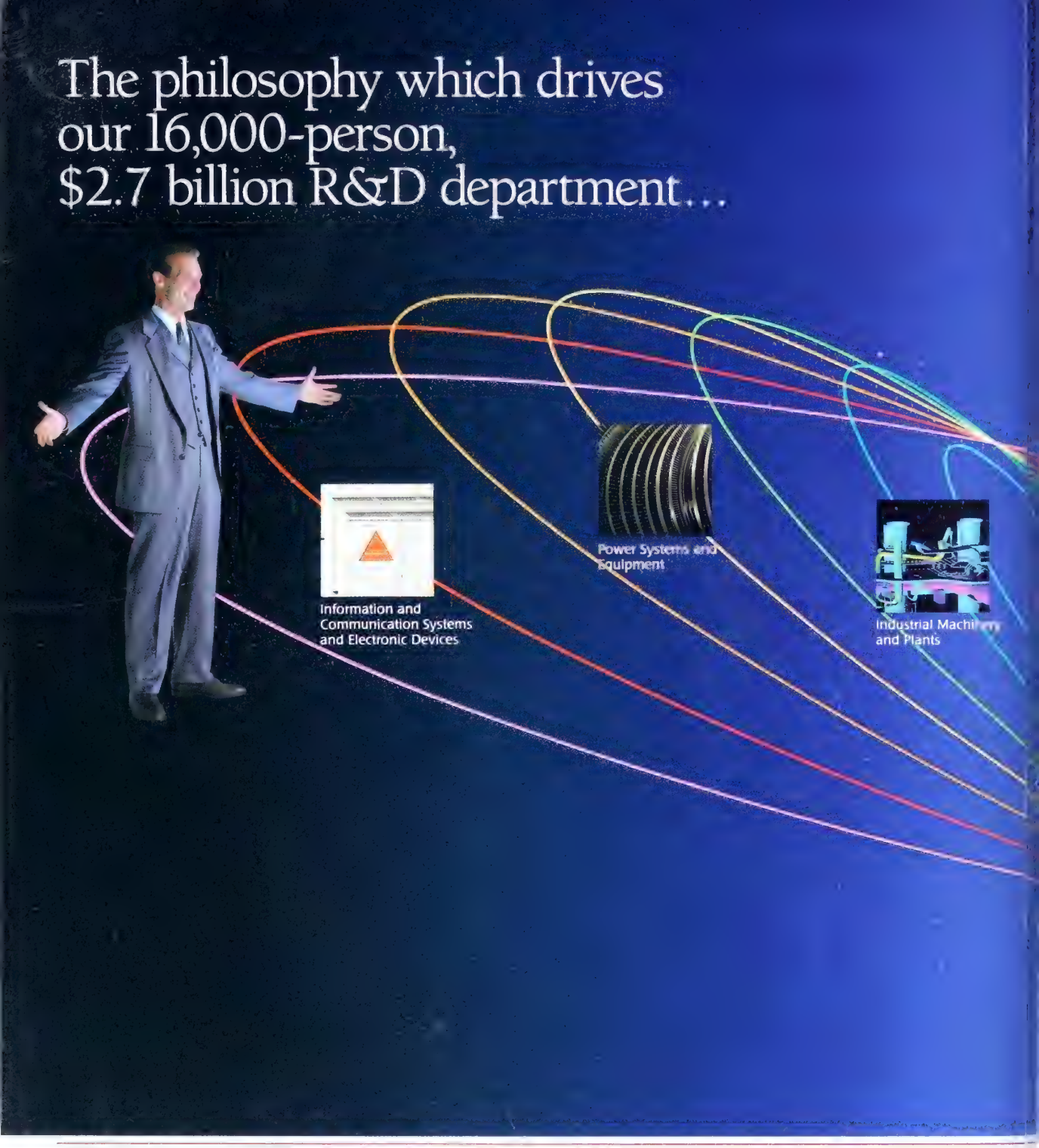
BusinessWeek

ECEMBER 24, 1990 A McGRAW-HILL PUBLICATION $2.00

THE NEW FACE OF RECESSION

No doubt about it, we're in recession. But it will be much different this time. The real estate collapse, the related banking problems, and the very high level of debt make this a finance-led recession. White-collar jobs are already being hit hard. How deep will it get? How long will it last? PAGE 58

The philosophy which drives our 16,000-person, $2.7 billion R&D department...



To Hitachi, the true measure of a corporation cannot be found on the financial pages or a balance sheet.

Rather, the true measure of a company's worth is its commitment to enhance the quality of life.

Few corporations can compare with Hitachi in this regard.

Our 16,000-person R&D department creates technologies that directly affect the lives of people everywhere.

We're involved in the development of a vast range of medical diagnostic equipment. Hydroelectric and thermal power plants. Computers, semiconductors and locomotives. Scientific research and analyses instruments. As well as consumer electronics, new materials and telecommunications systems.

With 33 research laboratories located in Japan, Europe and the United States, R&D is the lifeblood of Hitachi. It's the reason we're the world's largest corporation in the world. With 290,000 employees and 172 offices in 34 countries.

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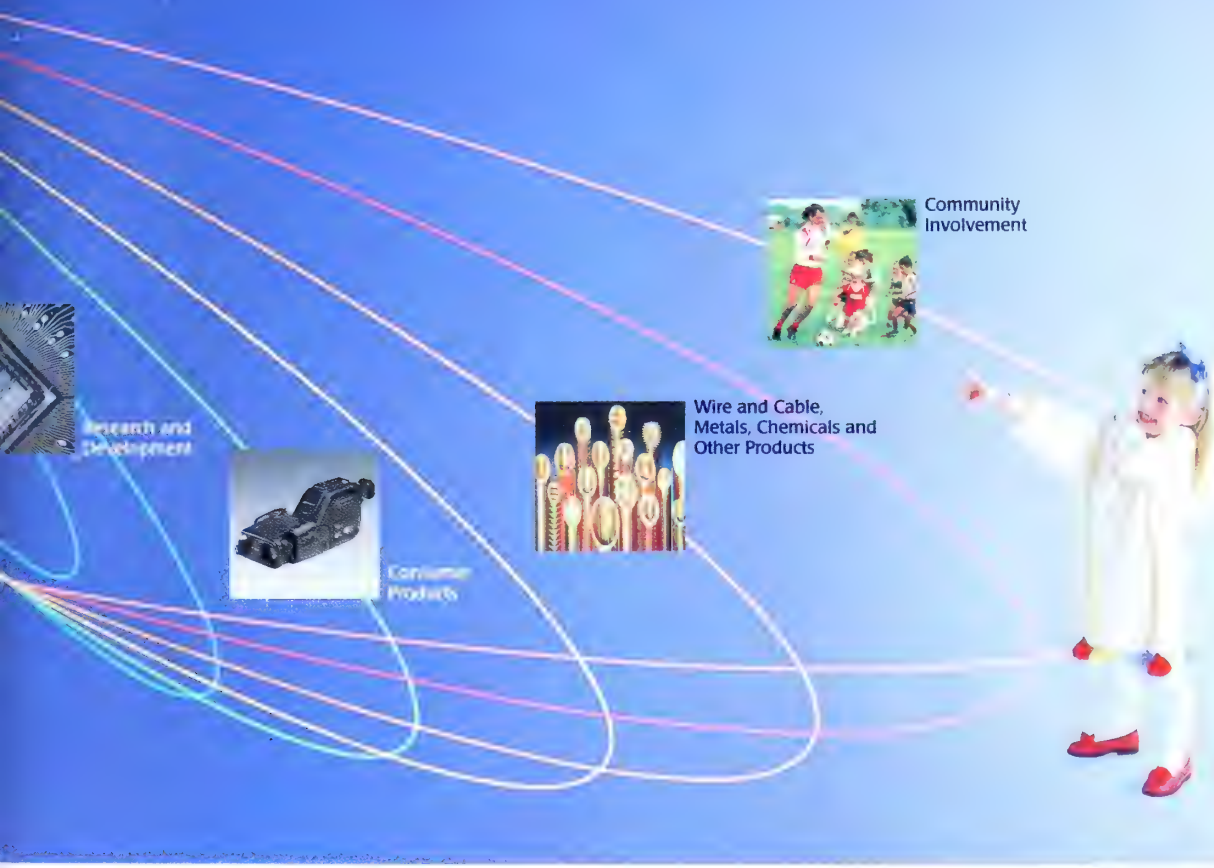
centers on a very important ubject: people.



tachi is a people company in other ways, too. ur recently established GREEN Center l Resources, Environment & Energy System) will soon join the battle to solve such ms as acid rain, the greenhouse effect and depletion. Even more, we accept some 50 researchers every year to work at our h laboratories. The international exchange rmation that takes place leads to technologi- vances and stimulates further discussion the academic community.

The breadth and scope of Hitachi is deep, indeed. Our products are found in offices, stores, factories, hospitals and homes around the world.

And with a people-oriented philosophy, Hitachi will continue to grow and secure a place as a citizen of the world. Creating products and technologies that make the lives of people everywhere better.

*$2,718 million; net R&D expenditures for the year ended March 31, 1990. US$1 = ¥158

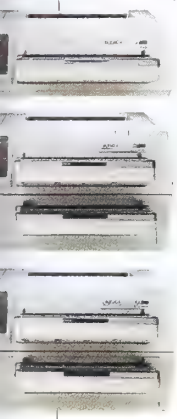
HITACHI

The Okidata OK. It's why we had to re-invent the laser printer.

What's the Okidata OK? It's a badge of honor that every Okidata product has to earn—a symbol of our commitment to design and deliver products that offer outstanding value and performance. Products that will not only satisfy you, but impress you.

The Laserless Printhead: Warranteed for 5 Years.

The performance promise behind the Okidata OK is the reason we had to re-invent the conventional laser printer. Our engineers frankly rejected the industry-standard page printer technology of laser beams, lenses and rotating mirrors. Instead, they designed and built a proprietary, solid-state LED printhead with no moving parts. It's a printing system so trouble-free, we guarantee our LED print element for 5 full years—making it by far the longest warranty in the industry.



But reliability isn't the only advantage our unique printhead offers. It also means a simpler design, resulting in a straight-line paper path that's far less likely to jam—even when feeding heavy stock, envelopes, or labels. And, since we build it ourselves, it means something else—a lower cost.

The OL400: The Only $999 Page Printer.

Our 4 ppm OL400, for example, has the lowest list price of any page printer on the market: only $999.* Yet that price gets you a printer that earned a PC Magazine Editor's Choice Award, with standard features—extra fonts, a full 200-sheet paper tray—that you won't find on a LaserJet® IIP selling for hundreds of dollars more. Plus a slim, low-profile design that's less bulky on a desktop.

The OL800: Twice the Output, with Room to Grow.

And the OL400 isn't the only Okidata LED page printer to offer outstanding value. For applications where greater speed is needed, the OL800 delivers 8 ppm with all the advantages of the Okidata LED printhead: straight-line paper path, 5-year printhead warranty, and a low $1499 list price.

Like all our LED page printers, the OL800 emulates HP® Series II for compatibility with most popular software; with its speed and selection of resident type fonts, it can handle the printing needs of a whole work group. What's more, as your applications change and your needs grow, a simple upgrade kit turns the OL800 into either a font-scaling OL820 or a PostScript®-compatible OL840.

The OL820: Smarter Than a LaserJet III.

The OL820 earned the Okidata OK by learning how to do font-scaling on the fly. Thanks to a special chip our engineers designed into the 820, it can solve complex type-sizing and positioning problems instantly—problems the LaserJet III needs to talk to its software to work out. That means the OL820 can deliver up to three pages of sophisticated text while the LaserJet III is still working on its first page.

And all at a price that's hundreds of dollars less than the LaserJet III.

The OL840: PostScript and Beyond.

And for applications that require full Adobe PostScript® compatibility, our OL840 delivers it in spades. It's ready to connect to any PC or Macintosh® system, or to both at the same time—then switch between systems with the push of a button.

The Okidata OK. It's a promise that makes our job—to design and manufacture a line of page printers offering both outstanding value and performance—a hard one.

But it makes your job—choosing the right brand of page printer for your application—easier than ever before.

For additional information, call us at 1-800-800-7333.

OKI OK!

OKIDATA OK!

We don't just design it to work. We design it to work wonders.™

Pictured with optional second paper tray; available on OL800, OL820 and OL840 models.
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*Manufacturers suggested retail price. Dealer prices may vary.
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NUMBER 3193

BusinessWeek

DECEMBER 2

IT'S A BUYER'S MARKET: AS THE SLOWDOWN TIGHTENS ITS GRIP, RETAILERS ARE DESPERATELY SLASHING PRICES

Cover Story

58 THE NEW FACE OF RECESSION
It's here, and it's ugly. What makes this downturn different from its predecessors is that finance leads the way. Debt is much higher, real estate is weaker, and white-collar workers are joining the blue-collar jobless in the unemployment lines. And as incomes plummet, so does consumer spending. How deep will this recession get? How long will it last?

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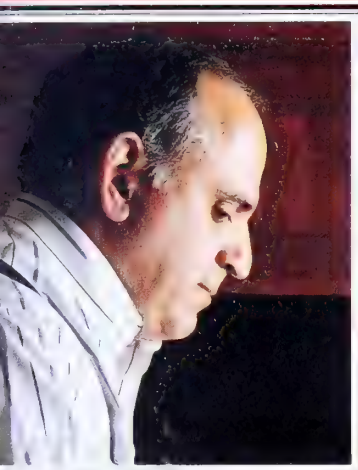

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ITS & BYTES
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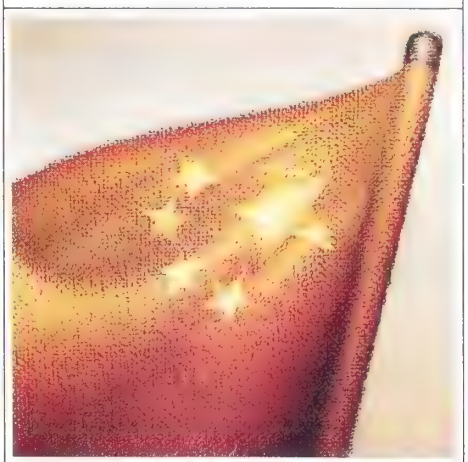

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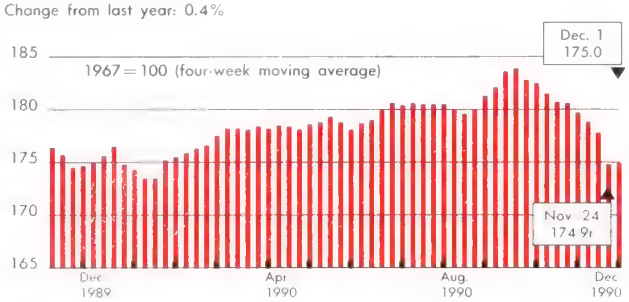
BusinessWeek Index

PRODUCTION

Change from last week: 0.1%
Change from last year: 0.4%

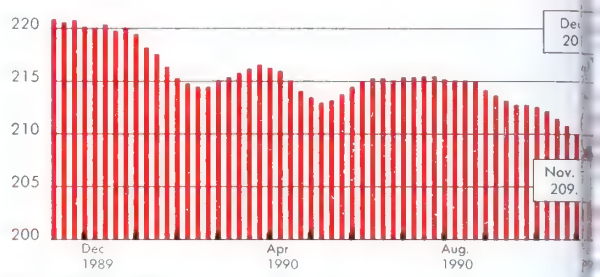


The production index increased slightly for the week ended Dec. 1. Seasonally adjusted output of rail-freight traffic, auto, coal, truck, electric power, and crude-oil refining rose. Steel, lumber, and paperboard production decreased, while paper output was unchanged. Before calculation of the four-week moving average, the index advanced to 178.5, up from 168.1 for the week, which included the Thanksgiving holiday. For November, the index fell to 175.6, from 180.7 in October.

BW production index copyright 1990 by McGraw Hill Inc

LEADING

Change from last week: 0.0%
Change from last year: –5.1%



The leading index declined for the week ended Dec. 1. In the latest we sharp increase in the number of business failures, along with slower growth i estate loans, M2, and a decline in materials prices offset higher stock price lower bond yields. Before calculation of the four-week moving average, the inde to 208.7, from 209.7 in the previous week. For the month of November, the dropped to 209, from October's level of 210.6.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (12/8) thous. of net tons	1,787	1,831 #	4.3
AUTOS (12/8) units	115,021	109,151r #	–10.9
TRUCKS (12/8) units	62,838	65,164r #	–27.0
ELECTRIC POWER (12/8) millions of kilowatt-hours	55,739	52,312 #	–2.0
CRUDE-OIL REFINING (12/8) thous. of bbl./day	12,780	13,489 =	–6.4
COAL (12/1) thous. of net tons	21,182 #	17,242	6.1
PAPERBOARD (12/1) thous. of tons	762.9 #	777.7r	4.2
PAPER (12/1) thous. of tons	786.0 =	784.0r	5.4
LUMBER (12/1) millions of ft.	426.2 #	260.4	–17.8
RAIL FREIGHT (12/1) billions of ton-miles	21.4 #	16.8	–0.5

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (12/12)	132	135	144
GERMAN MARK (12/12)	1.48	1.50	1.74
BRITISH POUND (12/12)	1.05	1.93	1.60
FRENCH FRANC (12/12)	5.02	5.09	5.93
CANADIAN DOLLAR (12/12)	1.16	1.16	1.16
SWISS FRANC (12/12)	1.26	1.28	1.55
MEXICAN PESO (12/12)[3]	2,926	2,924	2,668

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (12/12) $/troy oz.	370.900	376.000	–10.2
STEEL SCRAP (12/11) # 1 heavy, $/ton	106.00	106.00	9.8
FOODSTUFFS (12/10) index, 1967 = 100	211.2	212.4	–0.8
COPPER (12/8) ¢/lb.	116.0	119.8	5.4
ALUMINUM (12/8) ¢/lb.	70.3	71.0	–6.0
WHEAT (12/8) # 2 hard, $/bu.	2.79	2.72	–36.3
COTTON (12/8) strict low middling 1-1/16 in., ¢/lb.	68.69	67.33	5.8

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% ch yr
STOCK PRICES (12/7) S&P 500	327.44	318.56	
CORPORATE BOND YIELD, Aaa (12/7)	9.13%	9.20%	
INDUSTRIAL MATERIALS PRICES (12/7)	100.5	101.8	
BUSINESS FAILURES (11/30)	330	273	
REAL ESTATE LOANS (11/28) billions	$384.5	$384.8	
MONEY SUPPLY, M2 (11/26) billions	$3,324.1	$3,323.2r	
INITIAL CLAIMS, UNEMPLOYMENT (11/24) thous.	435	452	

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR ally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% ch yr
BUSINESS WEEK PRODUCTION INDEX (Nov.)	175.6	180.7r	
BUSINESS WEEK LEADING INDEX (Nov.)	209.0	210.6r	
EMPLOYMENT, CIVILIAN, MILLIONS, (Nov.)	117.3	117.7	
UNEMPLOYMENT RATE, CIVILIAN (Nov.)	5.9%	5.7%	

Sources: BW, CIBCR, BLS

MONETARY INDICATORS

	Latest week	Week ago	% ch yr
MONEY SUPPLY, M1 (11/26)	$825.5	$823.7r	
BANKS' BUSINESS LOANS (11/28)	317.0	318.6r	
FREE RESERVES (11/28)	870r	750r	
NONFINANCIAL COMMERCIAL PAPER (11/28)	147.7	151.5	

Sources: Federal Reserve Board (in billions, except for free reserves, which are expre a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	
FEDERAL FUNDS (12/11)	7.05%	7.58%	
PRIME (12/12)	10.00	10.00	1
COMMERCIAL PAPER 3-MONTH (12/11)	7.44	8.04	
CERTIFICATES OF DEPOSIT 3-MONTH (12/12)	7.52	7.35	
EURODOLLAR 3-MONTH (12/5)	8.01	8.25	

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equ
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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Readers Report

AFTER A YEAR, KUWAIT WON'T BE KUWAIT

Recently, you advocated that the U.S. and its allies wait a year or more before using force against Iraq ("It's way too early for war," Editorials, Dec. 10). Saddam Hussein would then allegedly be much weaker, and if at that point force had to be used, the cost in lives would at least be far smaller. Unfortunately, there won't be anything left of Kuwait after 12 more months of Iraqi occupation, so what would the logic be in trying to recover it?

The economy, society, and culture that existed on that territory before the Iraqi invasion will have ceased to exist.

Drage Vukcevich
Columbia, Md.

A RESPONSE FROM FUJITSU

Your publication, which normally has high editorial and journalistic standards, has been co-opted by three laid-off employees seeking adverse publicity against their prior employer ("Culture shock at home: Working for a foreign boss," Special Report, Dec. 17).

How can BUSINESS WEEK use mere allegations made in a lawsuit as an illustration of anything? These claims have not been heard by the court nor have plaintiffs testified under oath regarding their "story." Nonetheless, their unsupported assertions are used as the lead-in for a story on what it is like to work for a foreign-owned company. This is a disservice to the many men and women currently developing successful careers with foreign-owned companies.

For the record, one more time, Fujitsu Systems of America is vigorously contesting this lawsuit because it totally lacks merit. In March, 1990, the State of California closed its investigation of this matter on the basis that the charges lacked merit.

Further, the story falsely states that the complaint names the former president of our company as disclosing the "real" reason for the former employees being laid off from the company. The complaint, in fact, attributes this statement to no one: That is because no one said it. Our former president categorically denies that he ever made comments to that effect.

We are aware that the plaintiffs have attempted to publicize their story to a variety of print and electronic media news organizations. It is unfortunate that an instituion of BUSINESS WEEK's reputation and impact has demonstrated a basic lack of journalistic skepticism.

William Skeen
Senior Vice-President
Fujitsu Systems of America Inc.

A RULE CHANGE THAT WOULD REVEAL BANKING'S TRUE COLORS

While many bankers gasp at the idea of recording their securities portfolios at market value ("The beancounters have the banks cowering," Top of the News, Nov. 26), we should applaud Richard Breeden's (and the Financial Accounting Standards Board's) bold step. The accounting change will result in more volatile earnings and fluctuating regulatory capital levels, yet two benefits outweigh the disadvantages:

First, recording securities at market value will expose potential problems. Much of the general public is aware of the accounting abuses that contributed to the savings and loan disaster. Greater disclosure will benefit the regulators, investors, and ultimately the taxpayer.

Second, the rule change offers insight into a bank's risk posture. The S&L disaster is testament to the fact that risky investments and low credit standards are highly correlated. Accounting for securities at market value can enhance our understanding of a bank's lending philosophy.

Quentin Falconer
Los Angeles

U.S. WORKERS PAY DEARLY FOR CHEAP MEXICAN LABOR

Virtually every one of our locals has experienced the impact of extensive investment in *maquiladoras* ("Is free trade with Mexico good or bad for the U.S.?" Cover Story, Nov. 12). Nearly all major U.S. corporations have taken the

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CORRECTIONS & CLARIFICATI

In a table accompanying the a "Bitter choice: Broken promises o ken budgets" (Top of the News, 10), it was noted that retirees a lette Co. will have to pay a porti their monthly health care prem That applies only to those who after Jan. 1, 1992.

The Corporate Elite issue (Oct should have said Genzyme Corp Henri A. Termeer received an from the University of Virginia in

In "Can this tiger burn bright ag (International Business, Dec Daewoo Corp. President Yoon Y Suk's school was given incorrectl received his MBA from San Fra State University.

low road to the cheap labor pool the border. As a consequence, American workers who are stil ployed must compete with low Mexican workers just to keep thei

The results for Mexican workers been mixed, at best. They earn les a dollar an hour. In exchange, they live in shantytowns constructed discarded packing crates, without tricity or adequate sanitation, be by environmental pollution.

If corporate capital is free to m to the cheapest labor market, the foundations of our society will be crumble. Manufacturing jobs have the route to the middle class fo majority of American workers.

William H. By
International President, IUE, A
Washi

BOOSTING GORBACHEV KEEPS NATIONS IN CHAINS

Regarding "Why we should hel the Soviets" (Editorials, Dec. Western politicians are busily pro up the dying Gorbachev empire the captive nations be damned! As say that the Belgians and the F etc. are more entitled to indepen than the Balts, Ukrainians, Bye sians, Georgians, and others.

Why such a frantic effort on th of the West to puff up the ban Gorbachev and keep the submerge tions of the Soviet Union submerg

Mark Kar
C

Letters to the Editor should be sent to F Report, Business Week, 1221 Avenue of the cas. New York, N. Y. 10020. Fax: (212) 51 Telex: 12-7960, Intl. 4998204. All letters n clude an address and daytime and evenir phone numbers. We reserve the right to edi for clarity and space.

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IOST INJUDICIOUS TICE

e Fortas were he might be just uy to get Mike ut from under ar sentence. The Supreme Court as a genius at g legal loop- s most notorious as for his dear Lyndon Baines In 1948, he de- e strategy that ohnson's Senate spite compelling that Johnson n the primary. ortas, like Mil- ed to think rules o others. Even ining the high remained Presi- nson's key legal ecause he want- eep that power. did business with windler, because ed to retain the estyle he had rel- a corporate at- In time, arro- d greed did him 9, he became the preme Court jus- resign amid of impropriety.

FORTAS AND LBJ: ONE GOOD TURN DESERVED ANOTHER

e Fortas: A Biography, author alman, a lawyer and associate professor at the University of a at Santa Barbara, casts a e on Fortas the hypocrite. Kal- o had the cooperation of Fortas' nd former partners, strives to be t Fortas was massively flawed, diligently details his failings. rtraying the public Fortas, Kal- kes her case that his career, tretched from the New Deal to at Society, "mirrors the develop- American political and legal lib- " The inner man, she concedes, s elusive," because Fortas was a mate actor." That and her dry eep Fortas from quite coming ut Fortas' rise and fall are in- enough—and his contradictory, ing personality fascinating —to make the book compelling.

Fortas, a scholarship student at Memphis' Southwestern College, began his leap to power with his 1930 acceptance to Yale law school. As editor-in-chief of the *Yale Law Journal*, he was so nasty and egotistical that other students "hated" him, Kalman writes. But his ability to "toady up" to superiors made him the darling of the faculty—influential men who became his lifelong mentors.

Among them was William O. Douglas, who would also sit on the Supreme Court. When Douglas recruited his brilliant student to help with his research, it was the start of a relationship in which Fortas helped Douglas shine and Douglas opened doors for Fortas. After Fortas graduated, Douglas championed his Jewish protégé to his bigoted cronies on Wall Street. Fortas opted instead to commute between Yale, where he had won a teaching job, and Washington's Agricultural Adjustment Administration. In 1937, when Douglas became chairman of the Securities & Exchange Commission, he brought Fortas aboard.

Another key Yale connection was Professor Thurman Arnold. In 1945, he and Fortas founded the Washington firm Arnold & Fortas, now Arnold & Porter. Not only did the firm make Fortas wealthy but it also advanced him socially, as his clients became his friends. In addition to practicing corporate law, Fortas and his partners indulged their liberal consciences battling such evils as McCarthyism. In 1963, Fortas won a landmark Supreme Court case, *Gideon vs. Wainwright*, establishing the right of counsel for indigent prisoners.

But no one did more for Fortas than Johnson. Their bond was sealed when Fortas saved Johnson's Senate seat—and political career—by persuading Supreme Court Justice Hugo Black to block a probe of charges that Johnson had stolen votes in the 1948 primary. In 1965, as President, Johnson rewarded Fortas with a Supreme Court appointment. During confirmation hearings, Fortas played down his ties to Johnson. But they remained close, and in 1968, LBJ nominated Fortas for Chief Justice.

To be sure, Fortas suffered because his nomination symbolized liberalism when the country had begun shifting right. But evidence that he had, among other things, decided cases involving antiwar protestors while serving as an "architect" of Johnson's Vietnam policy led the Senate to reject the nomination.

Soon after, the press revealed Fortas' link to Louis Wolfson, a financier who in 1967 was convicted of selling unregistered stock. In return for unspecified help to his family foundation, Wolfson had offered Fortas $20,000 a year for life, just as Fortas was considering his move to the high court—and was most worried about maintaining his opulent lifestyle. Fortas accepted, then changed his mind before taking any cash. But the publicity forced him to resign.

Until his death in 1982, Kalman writes, Fortas practiced "in the Court's shadows." In his humiliation, he became more careful in his conduct and more sensitive to others, and he resumed his public-interest work. All the while, assessments of his term as justice improved as scholars began to appreciate his opinions protecting juvenile offenders and secular education. In the end, Fortas' fall, like his rise, was marked by contradictions. It symbolized the loss of innocence of a venerated institution—and it prompted the redemption, at least in part, of a brilliant legal thinker.

BY MICHELE B. GALEN

Galen is BW's Legal Affairs editor.

WHY COLD-TURKEY CAPITALISM WOULD BE BEST FOR THE SOVIETS

BY GARY S. BECKER

Prices and wages should be quickly deregulated—and land, housing, factories, and services promptly privatized. Any delay will only mean longer and more of pain

I recently was invited to Moscow to explain the principles of market economics to government officials, young economists, executives of state enterprises, and private entrepreneurs. I stressed that market systems rely not on edicts and regulations, but on the people themselves looking out for their interests. The bedrock of the market system—that shopkeepers and consumers, workers and management, or suppliers and customers do not voluntarily make a deal unless both sides expect to benefit—rubs against the Soviet grain. Most Soviet edicts against "speculation" apply to ordinary business transactions.

So far, despite all the talk about *perestroika*, government officials haven't done much in the Soviet Union. To move quickly in the right direction, Moscow's control of wages, working conditions, and consumer and producer prices, including the currency-exchange rates, must be replaced by thousands of voluntary transactions in labor, product, and foreign-exchange markets.

Soviet leaders can learn from the Polish reforms that began in January of this year. The government boldly abolished regulations over practically all prices, including the exchange rate. Unfortunately, Warsaw made a major mistake by freezing wages. This wage policy had much to do with Poland's subsequent decline in industrial output and with the recent defeat of the government. The Polish reformers apparently forgot that wages, like prices, need to be freely set by market forces in order to allocate efficiently a country's most precious resource, human capital.

A major problem for Moscow is the prevalence of state ownership. No system can provide proper economic incentives unless people have the right to buy, own, and sell property as they see fit. Self-interest and voluntary transactions cannot be successful motivators when most property is owned by the state. But private property has been the bogeyman of socialist theorists, and many Soviet leaders cannot easily set aside what they regard as the evils of private ownership.

SIMPLE GIFTS. Yet rapid progress is impossible unless the Kremlin's enormous assets are privatized quickly. Land, housing, retail establishments, and many services can become private property right away. They can simply be given to the present occupants: farmers, tenants, or employees. It would even be technically possible to privatize many large factories quickly. The workers or the population at large can be given ownership vouchers, or shares, which could be bought and sold. The initial distribution of shares is not so important: Before long, controlling interests will be bought by groups that are able to run the factories effi

Political considerations explain why zation programs usually take so long. tance comes from managers and em who fear for their jobs, bureaucrats w ry about loss of power, and consume believe that assets will be given away to political cronies or foreign companie

Soviet officials told me that peopl been slow to buy farms and other bus in recent experimental programs, becau en decades of communist rule have we their desire or capacity to own property few decades of communism have chang age-old desire to own land?

A more likely explanation: skepticis ownership might not last. The Soviet have not forgotten how Stalin seized pe land. In addition, price controls and allocation of materials still hamper the tion of most businesses. I am sure tha prices are determined by market forces businesses can bid for supplies, and wh fidence grows that ownership is secure est in private property will pick up.

SAFETY NET. Many in the Soviet Unio elsewhere in Europe fear that monopoly gouging will be common if prices and are set free. The monopoly problem diminished by encouraging competit product and labor markets. Any person have the right to start a business and p whenever he or she wishes without through endless red tape. Workers m able to move anywhere and take any jo can get without a bureaucrat's perm And if the government follows an oper policy and allows ruble earnings to be c ed into hard currencies at market rate eign companies would also compete a domestic companies by exporting to the Union, and through joint ventures there

To help break the inflationary pressu sulting from printing too many ruble government must stop financing defic state enterprises: These should be for make it on their own until they are priv Some of the funds should be spent inst a safety net for workers and retiree suffer drastic cuts in their standard of during the transition period.

There is no way to transform the command system painlessly into an ef economy, or to transform it overnight. B duration of the pain can be reduced a benefits increased if the essentials of a m system are quickly put into place. Duri crucial next 12 months, we will learn w the Soviet government and people ha will to do what is necessary.

GARY S. BECKER IS UNIVERSITY PROFESSOR OF ECONOMICS AND SOCIOLOGY AT THE UNIVERSITY OF CHICAGO

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ese photographs were never meant to be works of art. What happened?

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BY GENE KORETZ

NOT EVERYONE IS SO WORRIED ABOUT THE R-WORD

Recession now clouds the economic horizon, but because manufacturers took precautionary steps such as paring inventories, reducing payrolls, and adopting other cost-cutting measures, most of them still aren't singing the disappearing profit blues. That's the gist of a survey of some 250 U. S. manufacturers with sales from $10 million to $500 million conducted in early December by Grant Thornton, an accounting and consulting firm. Although 89% of the companies surveyed believe the nation is either entering a recession or already in one, only 24% expect their profits to decline next year. Indeed, a healthy 40% actually expect an increase.

WOMEN STILL EARN LESS, BUT THEY'VE COME A LONG WAY

One of the most striking labor-market developments of the past decade has been the sudden marked narrowing of the wage gap between women and men. In the current issue of *The American Enterprise*, economist June O'Neill of the City University of New York's Baruch College assesses the factors behind this change. She predicts that the pay gap will continue to narrow, but that future progress will depend less on eliminating discrimination than on reducing persistent gender differences in the priorities placed on work and family responsibilities.

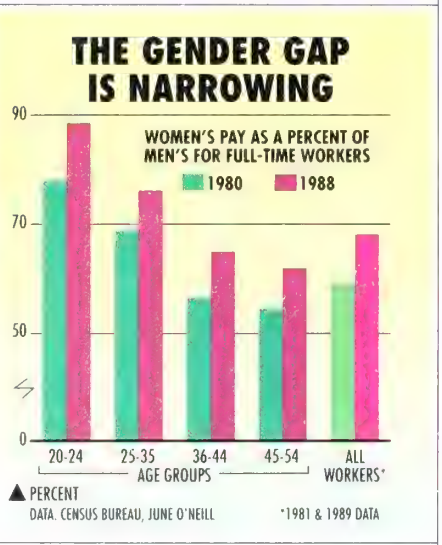
"Current differences in earnings attributable solely to gender," contends O'Neill, "are likely to be much smaller than is commonly believed—probably less than 10%."

The real mystery is that the pay gap persisted so long in the postwar period. Despite soaring female participation in the job market, the rise of feminism, and implementation of antidiscrimination laws and affirmative-action programs, the ratio of women's to men's full-time earnings was still 59% in 1981, a mere percentage point higher than in 1939.

Ironically, notes O'Neill, it was the huge influx of women into the labor force in the 1960s and 1970s that was largely responsible for the failure of the pay gap to shrink. In 1950, for example, the relatively small number of full-time women workers were comparatively well educated. But in subsequent decades, as women with little work experience and less schooling shifted from home activities to the job market, the average educational and work-skill levels of female workers deteriorated relative to men.

In the 1980s, however, the situation turned around. For one thing, women gained more than men in years of schooling during the decade, narrowing the male educational edge. Women also increasingly entered higher-paying, skilled, male-dominated occupations during the 1980s. And actual work experience among 20- to 44-year-old women rose significantly as labor-market turnover among women with children fell.

In short, unlike the pattern of preceding decades, there was a significant narrowing in skill differentials between men and women in the 1980s. At the same time, notes O'Neill, the relative wages of male blue-collar workers declined during the decade, causing the pay gap to narrow even more.



As for discrimination, O'Neill has analyzed the hourly earnings of childless, white 20- to 44-year-old men and women (women with children are likely to have less work experience than their male counterparts) and finds that such women earn 86% of male pay—and 91% when adjusted for such factors as schooling, industry, skill level, and work experience. This suggests, she says, that discrimination is less of a factor in the pay gap than many people believe.

To be sure, women workers remain concentrated in less-skilled, lower-paying occupations, though less so than in the past. O'Neill observes, however, that many women are still constrained by their household responsibilities and family priorities in their choice of jobs.

Moreover, she notes that the wider gender wage gap affecting today's older women reflects the fact that many became full-time workers in the rather than their 20s. As time and the female work force swell more women who started acquirin skills and work experience earl male-female earnings gap should even more.

MOST CONSUMERS ARE KEEPING CREDIT UNDER CONTROL

With household debt at levels and the recessio ening, there's growing cern that consumer loan defaul about to explode. Economist Alan son of the WEFA Group Inc., ho thinks such fears are exaggerate points out that the American Ba Assn. recently reported that con delinquencies as a percent of loa standing hardly rose in the third ter, creeping from 2.55% to 2.56%.

"That's not only below the 19 1988 peaks," he says, "but belo average rate for all of last year."

Moreover, consumers have been ing their borrowing for some tim consumer installment debt in O was just 3.7% above its year-earli el. Even with the sharp slowdow come growth, consumer interes ments as a share of personal inco only 8.01% in the third quarter, not above their 7.76% average level 1984. "While sliding income grow boost delinquency rates in the n ahead," says Levenson, "the cauti hibited by the consumer this yea gests that they won't get out of

WHEN THE FED SPEAKS, WALL STREET LISTENS

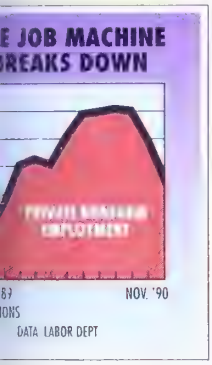
If history is any judge, the F Reserve Board's recent move duce the reserve requirements banking system should spell goo for the stock market. Economist E S. Hyman Jr. of C. J. Lawrence, M Grenfell Inc. notes that the Fed's marked only the 28th time the F acted to cut banks' reserve require in over 50 years—most recently i He calculates that in all but f those prior instances, the Dow Jo dustrial average posted an increas the subsequent six months, usu double digits. "The average appre in the Dow six months after past reserve requirements," he reports, a respectable 13%."

MBER 24, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HAT POUNDING ON THE PAVEMENT N'T HOLIDAY SHOPPERS

When economists checked their news wires on Friday morning, Dec. 7, for Washington's November report on the labor markets, their bugged out. Private industries slashed 270,000 jobs their payrolls last month, and October employment revised sharply lower, bringing that month's loss to 00 (chart). The declines were of the same magnitude ose recorded in the early months of the severe 1981- cession, and they exploded the popular notion that downturn would be quick and painless.



The report was a watershed. It showed that the economy's weakness was not only much deeper but also much broader than expected. Many economists suddenly became concerned that real gross national product in the fourth quarter could drop by as much as 4%.

Judging by the falloff in hours worked, that's not an outlandish figure. So far this quarjob losses and a shrinking workweek mean that time is falling at an annual rate of 5% from the -quarter level. The pace of hours worked plus provity is a good measure of GNP growth, and produc- gains this quarter will be small, at best.

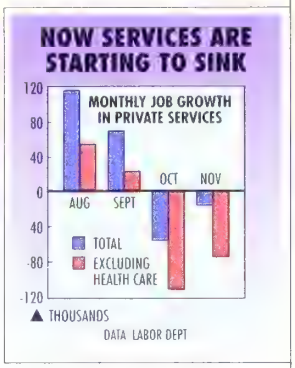
e Federal Reserve Board was also duly impressed. 'riday lunchtime, the Fed had moved to cut interest s for the third time in six weeks. Coming only three after a cut in reserve requirements, it was a clear that the central bank was stepping up its efforts to n the recession's blow. But the dismal job numbers gest that the economy is already badly battered.

OTHER, N YOU ARE OB?

The loud message from the November employment report was that no sector of the economy has been untouched by the recession—with the possible exception of th care. Barely 40% of the 356 industries surveyed he Labor Dept. expanded their payrolls last month. 's down sharply from an average of 54% in the first of the year. You have to go back to the depths of ast recession to match the November number.

anufacturing payrolls shrank by a huge 200,000—a also unmatched since the 1981-82 recession. Con- ction lost 62,000 jobs last month, bringing the total es since March to 335,000. And services, which had counted on to provide some stability in the economy ast recessions, are getting into trouble.

Service employment in the private sector has declined for two consecutive months, with losses totaling 69,000. But that doesn't show the whole problem. Job growth in the booming health care industry, less than 10% of private-sector service jobs, is masking the broader softness. Excluding the 115,000 new jobs created in health services in October and November, service employment lost 184,000 jobs during the past two months (chart).



Even including health care, job growth in private services has slowed to only 1.9% during the past year, from 3.2% in 1989 and 4.2% in 1988. The slowdown is much sharper than those at the start of past recessions. With so much of the economy's weakness concentrated in business services, finance, and retail and wholesale trade, service employment is likely to be hit especially hard as this recession unfolds.

Moreover, the recession, at first concentrated in the Northeast, is spreading. The national unemployment rate rose to 5.9% in November from 5.7% in October, but joblessness in California soared to 6.7% from 6% the month before, and the state's employment has dropped precipitously during the past three months. The unemployment rate in Texas jumped to 7% from 5.7%. And North Carolina's 5.1% rate, while below the U. S. average, was up sharply from 2.9% a year ago.

AUTO MAKERS ARE GOING SLOWER

The Midwest is still the strongest region, but the impact of major cutbacks by the auto industry is working its way though the area's network of supplier industries. After making cars at an annual rate of 7.5 million in September, the industry pared output to 6.8 million in October, and production was scheduled drop to about 5.5 million in both November and December.

The cutbacks were especially visible in the employment numbers. The auto industry alone lost 54,000 jobs in November. How many of those workers return in the first quarter will depend on how production schedules hold up. If sales don't rebound from their dreadful pace of 5.3 million in late November, further cuts in output are probably on the way, and that would worsen the slump in the factory sector.

Manufacturing was supposed to be something of a buffer during this recession, because of strong exports and tight inventory controls. But now, that's question-

able. Manufacturing accounted for three-fourths of the November drop in employment. All durable-goods industries posted losses, and only one nondurable industry managed an increase.

The factory sector has been paring its work force since early 1989 in an effort to cut costs, raise productivity, and enhance competitiveness. Now, however, the losses are accelerating. In the past 22 months, factories have let go 788,000 workers, but nearly half of those have been laid off in the past four months. Despite exports and low inventories, weak domestic demand is hitting manufacturing hard.

In fact, it's not yet clear how successful factories and other businesses have been at controlling inventories. Not since the last recession have businesses faced the kind of sharp drop in demand that is occurring in the current quarter. Excessive inventories may yet show up in some industries.

Moreover, if the rest of the world finds itself in recession, U. S. exports will suffer, despite a cheaper dollar. Already, Canada and Britain are in downturns, and they have accounted for 25% of the growth in American exports during the past three years.

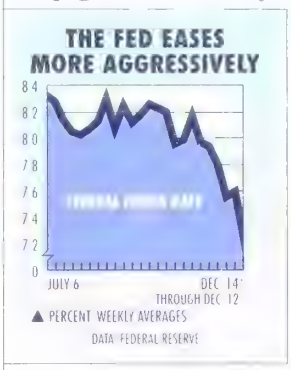
LOW RATES BODE WELL FOR BANKERS

Clearly, the Fed has expressed concern—if not by word, then by action—that the economy's weakness is getting out of hand. The central bank trimmed an additional quarter of a percentage point off the interest rate on federal funds, those that change hands between banks. It is the third such cut since Oct. 30, lowering the Fed's target for the rate to 7¼%, down from 8% six weeks ago (chart). And given the worsening economic picture, more cuts are surely on the way.

The lower funds rate and the cut in the reserve requirement address one of the economy's touchiest problems: a banking crisis. They significantly lower the chances that a bank could come up short of funds around the end of the year, when bank borrowing r are always high.

Moreover, the moves will help banks get back i business of competing for new loans. A few banks since cut their prime rates from 10% to 9¾%, and further cuts in the funds rate, large money-center b will find it easier to take the plunge, too.

To be sure, Fed easing and a resolution of the Mi crisis are the two most important requirements fo economic recovery. The Fed is surely hoping for a p ful settlement. A war would jack up the price o further and intensify concern over inflation, makin ditional easing much more difficult. But either wa prices will eventually fall back, and that will provid central bank with the latitude to cut interest rates help get the economy back on its feet.



In fact, oil may well be only inflation problem for The recession seems to be ing care of prices of everyt else. In particular, it is diff to see a wage-fueled surg prices next year, given th cent performance of ho earnings. They rose a s 0.1% in November, after de ing 0.1% in October. During past year, wages have r only about 3.5%, a slowdown from 4% a year ago. ther slack in the labor markets, as the unemploy rate rises, is likely to slow the pace of wages even m

The interest-sensitive sectors—including housing tos, and other consumer goods—will eventually lead economy out of recession. But it may take a w because of the heavy indebtedness of both consu and businesses. And few sectors will be unscathed deed, the news from the November employment rep that the worst is yet to come.

THE WEEK AHEAD

DURABLE-GOODS ORDERS

Monday, Dec. 17, 8:30 a.m.
New orders for durable goods probably fell about 1% in November, after a 3.9% gain in October. Most of the October rise was in demand for transportation equipment, which likely fell last month. Manufacturing continues to struggle as the recession spreads.

CONSUMER PRICE INDEX

Tuesday, Dec. 18, 8:30 a.m.
Consumer prices likely increased by 0.3% in November, according to the consensus of economists surveyed by McGraw-Hill Inc.'s MMS International. The expected rise would be half of the 0.6% jump in the CPI in October. Steadier oil prices helped to keep the overall November rise at a moderate level.

MERCHANDISE TRADE DEFICIT

Tuesday, Dec. 18, 8:30 a.m.
The foreign-trade deficit probably was little changed in October from September's $9.4 billion gap. The MMS consensus expects small increases in exports and imports in October. Both trade components had fallen in September.

HOUSING STARTS

Wednesday, Dec. 19, 8:30 a.m.
Housing starts probably stood at an annual rate of less than 1 million in November. That would be a small deterioration from October's dismal pace of slightly more than 1 million.

CAPITAL SPENDING

Thursday, Dec. 20, 8:30 a.m.
The Commerce Dept.'s survey of p for plant-and-equipment spending likely show that businesses expect t their capital budgets in 1991. For h year, spending is slated to rise a 5.4% before inflation. In 1989, spen rose 11.4%.

PERSONAL INCOME

Thursday, Dec. 20, 10 a.m.
Personal income likely increased by 0.2% in November, after rising 0.1 October. Job losses depressed w and salaries. Consumer spending pr bly rose by just 0.3% last month, af 0.1% gain in October.

PARIS: THE ROMANTIC SPIRIT OF THE HOLIDAYS

YVES SAINT LAURENT

SAKS FIFTH AVENUE

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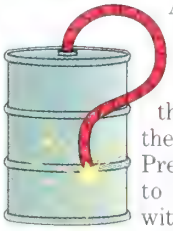
DECEMBER 24, 1990

PEACE WON'T COME CHEAP

A DEAL COULD BOOST SADDAM AS MUCH AS BUSH



After four months of grim preparations for war, policymakers in the U. S., Europe, and the Mideast are letting themselves dream of peace. President Bush's decision to open high-level talks with the Iraqis and Saddam Hussein's startling reply—the release of all Western hostages—has given diplomats their first real chance to defuse the Persian Gulf time bomb since Iraqi troops rolled into Kuwait last August.

When Secretary of State James A. Baker III visits Baghdad, he will still be threatening war unless Iraq withdraws from Kuwait. And Bush's planned Feb. 11 summit with Soviet leader Mikhail S. Gorbachev in Moscow will put another arrow in Baker's quiver. Saddam will have to contemplate the picture of the two superpower leaders locked in solidarity in the crucial weeks after the Jan. 15 deadline the U. N. set for Iraq's withdrawal.

But Saddam will also be keenly aware of America's waning support for war. And if he agrees to withdraw from Kuwait, Baker will have little choice but to explore with the Iraqi leader such issues as future U. S. security presence in the region and the Arab-Israeli conflict.

Even a deal for peace could leave huge headaches (box, page 20). For if Saddam avoids war, he may emerge a victor. Unless Bush and Baker can appear to push Saddam into conceding some check on Iraq's nuclear and chemical weapons development, an Iraqi withdrawal from Kuwait would leave Saddam with his military machine intact. Sanctions have damaged Iraq's already shaky economy, but the looting of Kuwait may have more than made up the loss. From the Arab-Israeli conflict to oil prices, Saddam will loom as a dominant figure in the Mideast. And to counter him, the U. S. could face a long and costly troop deployment that would strain the stability of Saudi Arabia and other conservative Arab states.

DREAM SCENARIO. Even at such cost, peace may be too tempting for Bush to resist. And the White House is betting that, having averted war, Bush can come out a hero. It's a dreamy scenario: "Big Stick" Bush drives the "new Hitler" out of Kuwait, shows the world that the U. S. can turn back aggression, and doesn't even lose a single soldier to hostile fire. A grateful public pushes Bush's poll ratings up to pre-recession highs.

Yet until that happy day, the rhetoric will remain as bellicose as ever. On Dec. 10, Defense Secretary Richard B. Cheney renewed the verbal assault by predicting that Saddam will have to flee Kuwait "with his tail between his legs." For his part, Saddam continues to move more troops into Kuwait. And any misstep could bring on war.

■ FREE AT LAST: BY SUDDENLY LETTING

The dogs may bark, goes an proverb, but the caravans pass on. Amman to Paris to Washington, mats are warming up. Saudi Arabi Iraq are scheduling high-level mee says a State Dept. specialist. That put the chief Arab adversaries tog at the table for the first time since August. It would also "keep the ball of wax from depending on the er-Saddam talks," says the official

SADDAM: WILL HIS WAR MACHINE AND PRESTIGE REMAIN INTACT?

THE PRICE OF A NEGOTIATED SETTLEMENT IN THE MIDEAST

■ **IRAQ** Saddam Hussein wouldn't be punished for his aggression against Kuwait, especially if he agrees to withdraw. And by staring down the U.S. and most of the world, his prestige as a leader in the Arab world would soar. But Saddam may still be pushed to disarm and to open his nuclear program to outside scrutiny

■ **ISRAEL** Already sk the prospect of peace with the Palestinians, would balk at any dis in which Saddam's pr looms large. U.S. effo push negotiations wo drive U.S.-Israeli relat a deeper chill

VERLY WHITTLED DOWN WESTERN RESOLVE TO RECAPTURE KUWAIT BY FORCE

J. S.-Iraq deal might look some-like this: Starting with a withdraw-n Kuwait, Baghdad would negoti-vith Arab neighbors over the nces that led it to seize Kuwait. include improved access to the some control of disputed oil fields Kuwait-Iraq border, and a settle-of its debts to Kuwait stemming he Iran-Iraq war.

big "if" is whether Saddam is willing to cough up Kuwait. For that reason, the threat of war will hang over U. S.-Iraqi talks right up to, and likely beyond, Jan. 15. Baker's talks with Saddam Hussein will rely heavily on the hope "that each man can accurately measure the other," says one State Dept. official. Another risk: Saddam, having whittled down Western resolve to use force by freeing hostages, may mistakenly conclude that he can force Bush to capitulate—and thus ignite war.

Yet as crude a bargainer as he is, there are compelling reasons why Saddam now can go so far as to meet the U. N.'s demands and still look like a winner. Says Michael C. Hudson, a Mideast specialist at Georgetown University: "Just surviving this would elevate Saddam to major status as the little guy who faced down this huge armada." In fact, some experts believe a total pullout would serve Saddam better than a partial one. Giving up all of Kuwait, Saddam would deny the U. N. a raison d'être for sanctions and the West leverage to force Iraq to disarm.

'NEW GAME.' Bush, too, could declare victory if Saddam quits Kuwait. In the hands of White House spinmeisters, Operation Desert Shield's success in forcing Saddam to back down without bloodshed would buoy Bush. Says Democratic pollster Stanley Greenberg: "If Bush gets a peaceful resolution and a successful outcome, he comes off as prudent and strong. I don't see a downside."

The President's men would also be able to claim big gains in diplomacy. Bush could argue that by mobilizing an unprecedented international coalition that includes the Soviet Union, he made collective global security work for the first time. And his advisers would insist that the global condemnation of Saddam Hussein will deter ambitious despots elsewhere.

But a solution that leaves the Iraqi leader's war machine intact and his political prestige enhanced "is a new game in which Saddam could come out very powerful," says Egyptian political analyst Mohamed Sid Ahmed. Indeed, the entire Mideast would be fraught with new tensions. Israel, which was already balking at the notion of peace talks with Palestinians, would find the prospect of negotiations in Saddam's shadow revolting. If it fails to disarm Iraq, the U. S. would have to counter Iraqi expansionism by a massive infusion of high-tech weaponry to Arab nations. Israel would demand—and get—matching caches of arms,

LLIES Saudi Ara- would have to cope stabilizing effect of and with Saddam's chist rhetoric. Egypt could face econom- from Iraq as Bagh- ch economy revives ts foreign investment

IRAN Iraq's traditional enemy, Iran, could become an important regional player, along with Syria. The U.S. could find new areas of agreement with the two nations, both of which have long been hostile to Washington

U.S. TROOPS Thousands of American soldiers would remain in Saudi Arabia and possibly Kuwait as part of a regional security force designed to deter Iraqi expansionism. But harsh living conditions and terrorism could plague them. And they could be a foil for growing Arab nationalism

ARMS PROLIFERATION To try to keep Saddam at bay, U.S. sales of new weaponry to Saudi Arabia, Kuwait, and other allies, totaling $20 billion to $30 billion, are likely. Such a buildup would guarantee a high level of terror and lessen interest in peace talks

DATA: BW

heightening the risk of future war.

Egypt and Turkey, which put themselves on the line with the West, "should be quaking in their boots at the thought we left Saddam and his military machine intact," says Washington Mideast specialist Joyce R. Starr. And for Saudi Arabia, the traditional Arab world leader, prospects are even bleaker. Not only would the conservative Saudi rulers have to defend themselves against Saddam's brand of secular Arab nationalism but they also would have to tolerate as many as 200,000 U. S. troops on their soil indefinitely. Warns Sir John Wilton, former British ambassador to Saudi Arabia: "The Saudi regime will continue to be vulnerable to accusations they had allowed a lot of infidels on holy land."

With such a mine field, Bush could wish he had made a more conv case at home for war. For when said and done, the new world orde Bush could have spawned in the M is going to look a lot like the old order of raw power politics. With Saddam would be quite comfortab

By Bill Javetski in Washingto Stanley Reed in New York, Richard cher in London, and Stewart Toy in

Commentary/by Douglas Harbrecht

THE CONVENTIONAL WISDOM ABOUT GEORGE BUSH IS WRONG

By now, all of Washington knows the book on George Bush. Cautious. Middle-of-the-road. No vision thing. And prone to sway with the polls. In his long public career, Bush has never escaped the rap that he is, well, just a tad too custodial. During his 1988 run for the White House, he was portrayed as the patrician captive of thuggish campaign handlers. Elected, he was instantly cast as the loyal caretaker of the Reagan legacy.

But in recent weeks, the President's actions have borne little relation to the conventional wisdom. He may be timid about defining a domestic agenda. But when it comes to foreign policy, Bush is proving himself to be an audacious leader with an unsettling tendency to set impossibly high goals. These days, the President's reach is exceeding his grasp just a little too often.

IN COSTA RICA: OFTEN, HIS REACH HAS EXCEEDED HIS GRASP

Consider the Iraq crisis. Bush's initial responses were spectacular. He moved more troops farther, faster than anyone believed possible. He won international acclaim by assembling a worldwide coalition that peacefully imposed economic sanctions against Saddam Hussein. At the same time, he convinced the world that he would sooner use force than negotiate with an Iraqi Hitler.

'NO-WIN SITUATION.' But it has become increasingly clear that the President's strategy of squeezing Saddam out of Kuwait had a flaw from Day One. By pronouncing that the U. S. will be satisfied with nothing less than the "complete and unconditional withdrawal" of Iraq from Kuwait and elimination of Iraq as a military threat, Bush denied himself any maneuvering room. Although Iraq is showing new flexibility, Bush "can't settle for anything less," says David N. Farnsworth, an international relations expert at Wichita State University. "This crisis has turned into a no-win situation for him."

The President's penchant for the bold gesture also was a key factor in the recent blowup of global trade talks in Brussels (page 65). At the economic summit in Houston last summer, U. S. trade officials stunned European diplomats with a bold ultimatum: The U. S. would accept nothing less than significant cuts in agricultural subsidies for European farm products as a price for successful completion of the trade talks.

But instead of promoting compromise, Bush came to the table with little wiggle room, giving the Europeans an excuse to be recalcitrant. "The Administration made a classic mistake. You never send people to negotiate with your bottom line showing," says Wayne Gertmenian, a negotiator in

the Nixon and Ford Administrat

Bush's fruitless pursuit of the g entente dates to the early days o Presidency. After the Tianan Square massacre in June, 1989, President thought that avoiding h condemnation of Beijing would v China's support for U. S. interests. the payoff has been paltry, a driven home when China failed to through with an expected vote in of a U. N. resolution authorizing use of force ag Iraq (page 34).

PROWESS. No Presi in recent times come to office b equipped to gra with international plexities than Ge Bush. He has serve director of the Ce Intelligence Age envoy to China, U. N. ambassador. the President's w ness may be an e sive regard for his foreign policy pro and his belief tha can turn warm pers relations with w leaders into consi support for U. S. ventures. Bus "far better trained than Ronald gan or Jimmy Carter," says Gert ian. "But he has no intuitive sen all of how to get from here to th

By now, it should be clear that E despite the golden resumé, is no la day Metternich. No one should grudge Bush his energy and ent asm in tackling world problems narrowing his objectives to the that count the most and by relying on his own intuition, the Presi may have a better chance of re ing the global pantheon to whic aspires.

UITABLE CAN NO LONGER FORD THE QUIET LIFE

mutual insurer is wading into the hurly-burly of public investment

quitable Life Assurance Society of the U. S.—now that's a stalwart name. But the nation's No. 3 insurlimping so badly that it's taking an t unheard-of step to shore up capielling stock to outside investors.

e New York-based insurance behehis a mutual company, which means wned by its policyholders. So are big American life underwriters. al ownership gives management a freer hand in running the business se no pesky analysts or shareholre around to bother them. But this e luxury Equitable can no longer d. After regulahurdles are cleared to 18 months, Eqe aims to sell a take to the outside , reserving the or the policyholdnder a formula as yet to be calcu. That way, the ny hopes to raise tra $500 million to r its weak capital Worries tend to when an insurer's l falls below 5% of ies. The leading nce provider, Pru- Insurance Co. of ica, has a 7.9% l cushion, for ex-. Equitable's is .7% (table).

EWS. But the pros- f fresh capital ofhe 131-year-old insome hope after a un of bad news. On Dec. 11, the day Equitable announced the stock Standard & Poor's Corp. downd the company's claims-paying because of expected yearend offs of troubled investments in onds and real estate. A large reng unknown: Does Equitable's lio contain more problem assets g to create fresh losses? Equitable ear posted a $29 million loss and another one—expected by outsidbe of the same magnitude—is on ay for 1990. The troubling perfor- moved Equitable's directors last er to restructure management.

with any luck, the underwriter now have stanched its worst wound: the $17 billion in guaranteed investment contracts that it wrote in the early 1980s. The GICs, as they're known, promised sky-high returns to investors. Equitable wound up paying out $1.5 billion more to cover those promises than the bonds that backed them up earned. By now, however, these GICs have almost all expired.

Moreover, Equitable's new chief executive, former Wall Streeter Richard H. Jenrette, seems to be moving swiftly to set the insurer's basic operations right. Equitable pared $160 million in costs by laying off 500 of its 23,000 employees. Jenrette also sold Equitable's fleet of limousines. "We're getting our house in order and believe that 1991 will show a good recovery in earnings," announces Jenrette.

That's the plan. Will it work? For starters, it's a good thing that Equitable isn't trying to float stock right this minute. Initial public offerings are in the dumps as the stock market struggles along these days. And insurance stocks are hardly hot stuff: The group has sunk 20% in the past six months, more than the market as a whole. "Equitable has to show that the asset-related problems are over" for investors to buy the stock, observes Weston M. Hicks, a vice-president at Moody's Investors Service Inc.

This is why Equitable isn't coming to public investors initially. Instead, it will try to line up private money to buy debentures that can be converted into stock after the switch-over. The company is making that pitch to overseas interests, particularly foreign insurance companies, which are showing increasing interest in the U. S. Germany's Allianz, the largest insurance company in Europe, this year bought Fireman's Fund Insurance Co. for $1.1 billion. And Japan's Dai-Ichi Mutual Life Insurance Co. is paying $312 million for a 10% stake in Lincoln National Corp.

BEST CURE? Because it helped write the 1988 New York State law allowing the "demutualization" move, Equitable is well-versed in the mechanics of switching to stock ownership. Nor is this the insurance carrier's first switch: It started life in the mid-1800s as a stock company, converting to a mutual in 1918. Jenrette, as a founder of Donaldson, Lufkin & Jenrette Securities Corp., also has been a pioneer in going public. In 1970, he helped make DLJ the first publicly traded Wall Street firm.

That set a trend. But don't look for a repeat among the insurers. Prudential and No. 2 Metropolitan Life Insurance Co. both pointedly say that they intend to stay mutuals. Both are in solid shape and don't need the extra capital. A mere handful of mutuals have made the switch in the past decade—and they were far smaller than Equitable. Besides, the people who run mutuals love operating in a relatively undisturbed way. "They don't see going public as the answer to the meaning of life," observes Robert J. Arvanitis, a senior vice-president at Conning & Co., an insurance-research firm.

Just the same, given its recent record, public ownership and the scrutiny it entails may be the best cure for Equitable. Like other big insurers, it branched out in the 1980s from the ho-hum world of insurance—buying DLJ in 1985, for instance. While some forays, including the DLJ deal, proved profitable, others backfired. Predicts Arvanitis: "Equitable is going to put less stress on being a financial supermarket and more on being a back-to-basics insurance company." With extra capital and lower ambitions, Equitable could get back on track.

By Larry Light in New York

CONVERTING TO STOCK OWNERSHIP...

EQUITABLE	1989	1992
INSURANCE LIABILITIES	$44 billion	$43 billion
CAPITAL	$2.1 billion	$2.6 billion
CAPITAL AS PERCENT OF INSURANCE LIABILITIES	4.7%	6.0%

...WILL BOOST EQUITABLE'S CAPITAL NEARER TO A TOP RIVAL'S

PRUDENTIAL	1989	1992
INSURANCE LIABILITIES	$100 billion	NA
CAPITAL	$7.9 billion	NA
CAPITAL AS PERCENT OF INSURANCE LIABILITIES	7.9%	NA

NA=NOT AVAILABLE

DATA COMPANY REPORTS

INSURANCE

FIRST EXECUTIVE FINDS ITSELF BETWEEN A ROCK AND A HARD AUDIT

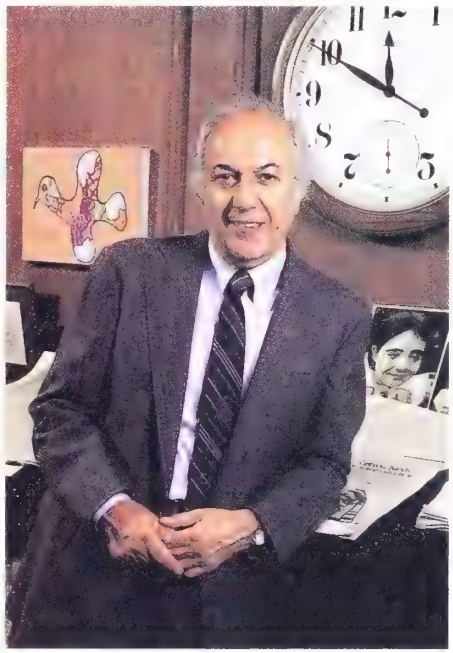
The insurer apparently understated write-downs—at its peril

Fred Carr has been dodging bullets for a long time. The chairman of First Executive Corp. has kept his beleaguered insurance company going in the face of defections by policyholders, a sinking junk-bond portfolio, and the taint of his ties to a notorious convict, Michael Milken. Now, trouble may have finally caught up with Carr.

To buy time, Carr seems to have tried some fancy accounting. First Executive appears to have understated the amount of write-downs it is required to take when customers surrender policies. The day of reckoning is Dec. 31, when the company's accountants begin the annual audit that could force the write-downs. That could drive First Executive's net worth down sharply, triggering a nasty series of reactions that ultimately could prove the company's undoing.

What's in question is an arcane insurance item called DPAC, or deferred policy acquisition costs. These are the advertising and marketing bills, commissions, and other expenses incurred when a policy or annuity is sold. Insurers are allowed to spread those costs out over the life of the policy, writing them off in quarterly increments.

DELAYED PAIN. When a policy is surrendered, insurers are required to take the hit on all remaining DPAC at once. But First Executive seems to be trying to postpone the pain. In the first nine months of 1990, customers have surrendered $3.1 billion worth of policies and annuities. Yet the company disclosed a write-down of a mere $83 million of DPAC for those surrenders. By contrast,



CARR: IF NET WORTH SLIPS BELOW THE LIMIT SET BY BANKS, HIS COMPANY MAY UNRAVEL

the insurer wrote down $180 million of DPAC last year when about $1 billion worth of policies were surrendered (charts). "You'd think they'd be writing it down," says Joseph Belth, a finance professor at Indiana University.

First Executive won't comment except to say all the gloom and doom over DPAC is "not supportable by the relevant accounting and actuarial standards." The company declined requests from BUSINESS WEEK for more information about its DPAC policy. Without the data, it's tough to estimate the size of potential DPAC write-down, says acc ing analyst Loren Kellogg, who the DPAC numbers "odd." Moreove company's 1989 annual statement t Securities & Exchange Commi gives Carr something of an out by ing the numbers could be adjusted

For now, though, the higher could be Carr's life jacket. The number counts as an asset on the ance sheet, adding to net worth, eroded to $1.1 billion. That is dange ly near its major lenders' trigger Under the original terms of the loa First Executive's net worth falls $779 million for six months, Carr have to begin repaying the principal $275 million loan. Right now, Carr even make the regular payments. this month, Carr persuaded First E tive's lead lender, Yasuda Trust & ing Co., to reschedule the loan pe final approval from all lenders. N terms of the new loan are known

Beyond that, the company is wo on another restructuring plan—one requires lining up support of pref holders. But Carr will be facing a re group. To win the bank deal, he ised to halt a $44 million payout of al cash dividends on preferred stock company has called a special shareh meeting to vote on a stock restru ing. No plan has been outlined, but lysts expect Carr to ask shareholde swap their preferred for zero-co bonds or common stock. With con shares trading at around 75¢ and pects of a distant payout on zero-co bonds dim, the offer will be a hard

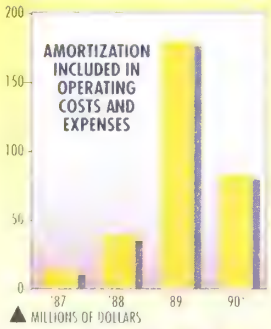
CHAIN REACTION. First Executive m panic remaining policyholders in event of a huge DPAC write-down— the company could start to unravel. 1989 yearend write-down of $859 m prompted a flood of surrenders (ch To pay off those policies, the com raised cash by selling some investm A new wave of cash-ins could force to liquidate junkier bonds, forcing insurer to realize a hefty chunk o $2.3 billion in paper losses—and wi out most of its net worth. Then, shareholder and Carr foe Travis F "they have terminal problems."

Insolvency at the parent comp wouldn't necessarily destroy the leg separate insurance units. But confid is already shaky, and bankruptcy w surely spark a massive flight of cus ers, dragging down the insurance u too. So far, Carr has relied on f footwork to avoid that vicious cycle. his own accountants could trip hin when they take a hard look at First ecutive's balance sheet.

By Kathleen Kerwin in Los An

When an insurer sells a policy, the company doesn't have to account for the costs of acquiring it—advertising, processing, sales commission—all at once. Instead, the insurer spreads the costs over the life of the policy. But when the policy is cashed in early, the insurer must write off all the remaining costs at that point, hurting reported earnings

FIRST EXECUTIVE: WRITE-OFFS SLOWED...



*COMPANY'S ONLY DISCLOSURE TO DATE

...EVEN AS SURRENDERS SOARED

**ANNUITY SURRENDERS ONLY, POLICY SURRENDERS WERE FEW

COMPANY REPORTS

LLING A RUMOR FORE IT KILLS A COMPANY

ery Corporate America is feeding a PR boom

sssst! Did you hear that Equitable, the nation's third-largest insurer, is going bankrupt? That rumor swept the financial world recently. It's false. But executives at Equitable Life Assurance Society of the U. S. took the talk so seriously that they launched a major effort to kill it: memos to employees, letters to customers, and statements to the media. They even enlisted the New York State Insurance Dept. to certify that all was well.

As the recession gathers force, stopping damaging rumors has become vitally important to Corporate America. This is especially true for financial companies that, like Equitable, which depend on public confidence. Drexel Burnham Lambert Inc., once a Wall Street powerhouse, crumbled in a matter of days once word got out that it couldn't pay its IOUs.

COMMON SENSE. Although Equitable's capital position is far stronger than Drexel's, the insurance giant could have suffered serious harm if spooked policyholders had rushed to surrender policies and annuities. The rumor sparked an uproar at DeFrancisci Machine Corp., a Long Island City, Queens (N. Y.) manufacturer of bakery-making machinery that is transferring its $390,000 retirement fund to Equitable. "The employees were ready to come to blows," says DeFrancisci office manager Yvette Rodriguez. "Fortunately, Equitable people convinced everybody it was nonsense." The rumor may have hastened Equitable's Dec. 11 announcement that it planned to go public (page 21).

Deep-sixing rumors is a growth industry. In the past, public relations firms focused on refurbishing an image once a catastrophe had occurred. The textbook example is Burson-Marsteller's advice to Johnson & Johnson when seven people died from ingesting poisoned Tylenol in 1982. But the new specialty is stopping gossip about an event that has not happened—and may never happen. Advised by the high-powered PR folk at Kekst & Co., troubled retailer R. H. Macy & Co. took the controversial step of buying a full-page ad in *Women's Wear Daily* to dispel rumors that it, too, would file for Chapter 11.

Fighting rumors has its own unique hazards. For one thing, denying the rumor has the perverse effect of also spreading it. Because some rumors are just an early version of the plain, unhappy truth, PR advisers occasionally counsel silence. Says James Fingeroth, a Kekst principal: "Sometimes you have to withstand a battering until you have a cogent case to make."

More often, the advice is to refute the chatter quickly. Professor Irv Schenkler of New York University's Stern School of Business has an entire program laid out to zap rumors, starting from memos to employees and ending with ads (box).

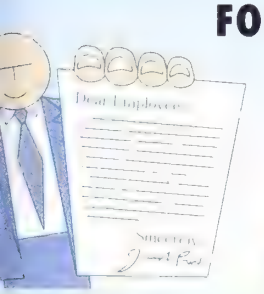
Schenkler's program rests on a foundation of common sense: Facts, fully disclosed, will drive out the distortions of rumor. Rumors take root because they are plausible. The companies concerned have displayed some weakness before. Equitable and Macy's have booked big losses. Both companies took pains to attack the rumors with a blend of facts, figures, and optimistic rhetoric.

ECHO EFFECT. Nowhere is that course of action more crucial than at private companies and partnerships. Because their finances aren't publicly reported, loose talk can reverberate in an information vacuum. Ernst & Young, owned by its 2,000 partners, recently got buffeted by bankruptcy rumors after the Federal Deposit Insurance Corp. sued the nation's No. 1 accounting firm for $560 million. The FDIC claims the accountants should have spotted trouble at a thrift they audited that later collapsed. The firm, denying the allegations, argues that even if the FDIC won, the actual award would likely be minuscule.

Spin-doctoring doesn't always work—and the rumor-fighters look especially bad after the story turns out to be true. Consider Continental Airline Holdings Inc., which on Oct. 24 sought to squelch a bankruptcy rumor by saying it "has no intent to seek protection under these codes." The airline's debt burden and huge jet-fuel bills made that hard to believe. Wary investors wanted no part of the cash-short carrier's sale-leaseback deals for its planes and a building. Result: Continental landed in bankruptcy court anyway. As times grow increasingly dire, you'll hear more such sad tales—and that's no rumor.

By Larry Light, with Mark Landler, in New York

FOUR WAYS TO QUASH AN UNTRUE RUMOR



To stop employee morale
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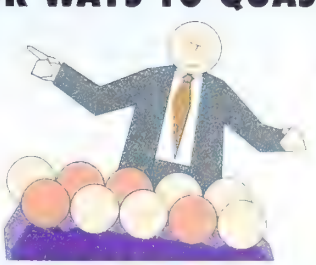

2. If that doesn't work, get middle managers to call staff meetings and counteract the talk. Don't use high-ranking corporate officers whom the workers don't know and maybe don't trust

3. The rumor has spread to the outside world? Open up a press offensive right away. Don't wait for the gossip to keep circulating unanswered. Issue a statement by the CEO discounting it. Company public relations officers should follow up by calling reporters individually

4. The rumor still breathes? Take out a newspaper ad denying it. But don't make the ad too rah-rah. Self-promotion makes people skeptical. Just lay out your case, using facts and figures

DATA NEW YORK UNIVERSITY

EXECUTIVE SUITE

OHIO HEADQUARTERS: MERGING OPERATIONS SHOULD SAVE AT LEAST $30 MILLION

NESTLE'S CRUNCH IN THE U.S.

Squeezed by huge rivals, it circles the wagons and consolidates

Nestlé, the Swiss-based food giant with $38 billion in worldwide sales, isn't known for rash moves. Its November announcement that it would consolidate its $6.4 billion U. S. food business into a single holding company "was as predictable as the sun coming up," says John H. Bryan, chairman of Sara Lee Corp.

Or was it?

Until recently, Nestlé Chairman Helmut Maucher had planned that by 1993, he'd get around to folding Carnation Co., acquired for $3 billion in 1985, into the rest of Nestlé's U. S. food business. Until then, Nestlé would keep right on selling its Quik chocolate mix, Lean Cuisine entrées, and Taster's Choice instant coffee almost as if it didn't own another huge U. S. food business. If Maucher has now decided to speed up that timetable, then you can bet that events are forcing his hand. Simply put, the food business has been changing too quickly and the competition has been gro too big for him to wait.

The changes, begun last June w consolidation of coffee and ice c units, will result in the creation of holding company, Nestlé USA Inc. entity will subsume Ohio-based N Enterprises Inc., the $4.3 billion h company that is Nestle's largest unit. James M. Biggar, who had CEO at Nestlé Enterprises, is taki the largely ceremonial duties of N USA chairman while the CEO title go former Carnation head Timm F. Adding to the commotion, Biggar a simultaneously replaced David H. nings, the head of what was once tlé's U. S. star, Stouffer Foods, be of lagging performance there (box

OVERHAUL. Senior Nestlé executiv longer believed that the old corp structure could react fast enough growing clout and sophistication retail trade. Where just a decade a supermarket chain in Los Angele more than about 8% of the market, notes, now three companies contro of it. And "they know our busine well as we do," Crull says.

Nestlé also found its compe changing, often dramatically. such as Kraft General Foods and Agra now dwarf Nestlé in U. S. And Unilever and Procter & Gamb have overhauled their organizatio take advantage of their huge size. price of poker has gone up," says "We felt that if we didn't move, lose in the strategic battle in the U

Maucher guesses that the cons tion should save at least $30 milli overhead and administration. Bu more important, it will allow Nes tap advantages of scale and foc

NO MORE FAT CITY FOR LEAN CUISINE

Stouffer Foods Corp.'s Lean Cuisine line of frozen entrées was a classic case of right product, right time. Introduced in 1981, its sales soared within a year to $200 million. By 1984, Stouffer flirted with a 50% share of the U. S. market for frozen entrées, helping it become one of the most profitable companies in the Nestlé empire.

No longer. Now, Stouffer profits are "back to normal," as Nestlé Chairman Helmut Maucher puts it. The company still ranks No. 1 in the entrée business, and sales are still growing, but its rivals now look up at a market share in the 30% range. And Lean Cuisine's troubles have only gotten worse recently. In fact, Stouffer's decline has become a classic of another sort: how not to market.

As Maucher points out, the competitors Stouffer drew with its success would probably dent even the strongest company's performance. But Stouffer's own miscues added to its woes.

The problems began in the mid-'80s, when Budget Gourmet began offering cheaper products. Stouffer, unwilling to sacrifice its quality image, sniffed—and forfeited hundreds of millions in business, just as the premium end of the market was slowing down.

At the same time, Weight Watchers

STOUFFER'S ENTREES: STILL NO. 1, BUT LOSING MARKET SHARE

was attaching its n iker to everyth from popcorn to pe yogurt. By contr Lean Cuisine line tensions came sl and with agoni caution.

More damage come from Hea Choice, a line of sodium, low-fat it from ConAgra Inc. Right Cou Stouffer's comparable line of entr has drawn only 2% of the market.

Stouffer, overseen by new N USA President Timm F. Crull, plans a jor countermoves next year, star with more aggressive pricing. It l as if the gloves finally are abou come off.

By Zachary Schiller in Clev

esses where until now, different
é units would operate independent-
one company, Nestlé has far more
with customers since it will be sell-
l of its food products together. By
ng smaller, more frequent deliver-
its entire product line, it can give
ners faster turnover and therefore
r cash flow. "That's the name of
ame," says Crull. Nestlé will also
e to do more extensive promotions
an even bargain more effectively
ime advertising time.

en Nestlé's cautious culture, the
tive shuffling has provoked the
comment among food industry ri-
Maucher explains the move by say-
at the new Nestlé USA had to have
ss to be efficient. He insists that
er's profit and market share slide
nothing to do with the consolida-
uggesting Biggar's move to chair-
s "a very fine end of a career." His
ning for going with Crull, 59, in-
of Biggar, 62: "I picked the youn-
ne, who might provide some fresh
"

er Nestlé executives, though, com-
that Biggar, the son-in-law of
er pioneer Vernon Stouffer, has
d the business like the family oper-
it once was. "Jim Biggar's man-
nt style is one of trying to achieve
nsus, even if it takes months and
s," says one knowledgeable ob-
. "Jim's way was just taking too
Biggar admits he sometimes errs
side of attachment to long-stand-
ssociates and businesses. But he
is near-doubling of NEI sales and
g in profits since he took over in

PIE STAPLE. Nonetheless, it will be
who leads Nestlé USA into action.
harismatic former salesman can
senator at ease as well as a cab-
says one former associate. But at
me time, Crull likes to think of
f and his executives as street-
rs. One current example: his battle
e on Abbott Laboratories and Bris-
ers Squibb Co., the leading play-
the U. S. infant-formula business.
is plunging straight ahead with
to advertise formula directly to
ners, not just to physicians. He
as developed some strong new
sses, most notably that yuppie
the Contadina line of fresh pastas
uces.

Biggar, Crull is known for deliv-
steady earnings gains. And he
e's ready to make a big acquisi-
hen the opportunity presents it-
But even without a blockbuster
the new-look Nestlé appears to
aught up with the changes in the
usiness.

Zachary Schiller in Cleveland, with
erren in Chicago

WHY LONE STAR MAY NEVER SHINE AGAIN

Even Chapter 11 protection may not help it overcome past mistakes

For Lone Star Industries Inc. shareholders, following the company's fortunes has been akin to watching a slow-motion train wreck. In two years, share prices have plummeted an excruciating 90%. The once-eminent company has sold its best assets to stave off losses—while its chairman and chief executive officer, James E. Stewart, enjoyed a lavish company-financed lifestyle. On Dec. 10, Lone Star hit bottom. The company filed for protection from creditors under Chapter 11. Two days later, Stewart took an indefinite leave of absence from his post.

STEWART HAS BEEN REPLACED AS CEO—BUT REMAINS ON THE BOARD

And so begins a new, not necessarily brighter, era for the Stamford (Conn.) company, which at one time was the nation's leading cement manufacturer. The company now has a new acting CEO: David W. Wallace, a Lone Star board member who is chairman and CEO of Todd Shipyards Corp., which also is undergoing reorganization in bankruptcy court. But while Wallace is making all the right disapproving noises about Stewart's lavish personal spending—the board has hired a law firm to probe his expense account—Lone Star is not necessarily on the trail to recovery. Stewart did not respond to repeated requests to be interviewed for this article.

WINDOW SHOPPERS. The damage to Lone Star may simply be too great now for it to climb back to its former status. Corporate insiders portray the company as groping for a suitor, an injection of cash, anything that would resuscitate it. To be sure, poor industry conditions—a weak economy and ferocious foreign competition—are to blame for some of Lone Star's woes. But critics have argued that much of Lone Star's travails are a result of years of mismanagement. One reason Lone Star has been forced to seek bankruptcy reorganization is that it is unattractive to a potential deep-pocketed suitor. Why? Over the years, Lone Star has spun off some of its most productive cement plants to joint ventures that give Lone Star's partners the right to buy out Lone Star at cut rates if the company's ownership changes.

As a result, no potential buyers are on the horizon, even though Lone Star shares are trading at only around 3—one-sixth of tangible book value. French cement giant Essroc Corp., which considered purchasing Lone Star's domestic operations, not including the joint ventures, lost interest after seeing Lone Star's debt load and taking careful readings of the depressed cement industry. One offer was serious—but far from generous. It came from a Swiss cement company, Société Suisse de Ciment Portland, which offered to take over Lone Star in return for $150 million in loans—but with not a nickel to shareholders. According to a Lone Star director who requested anonymity, "Jim Stewart fought like a stray cat for that deal"—and opposed filing for bankruptcy reorganization.

Defeat of the Swiss deal was a stunning blow for Stewart. He had long enjoyed the support of the board, which includes such corporate dignitaries as Robert S. Strauss, former chairman of the Democratic National Committee, and Dwayne O. Andreas, CEO of Archer Daniels Midland Co. Why the change in attitude? According to Wallace, the watershed event was a BUSINESS WEEK article describing Stewart's expense account—which totaled $2.9 million in 1989, mostly for corporate aircraft and accommodations at fancy New York hotels for Stewart, who resides in Florida (BW—Nov. 5).

STUNNER. The details of Stewart's free-spending ways, Wallace insists, were a big surprise to the board. He maintains that, among other things, the board did not know that the company paid for a New York hotel suite for Sheldon Kaplan, a Stewart ally on the board of directors. "We were relying on our outside auditors [Coopers & Lybrand]," says

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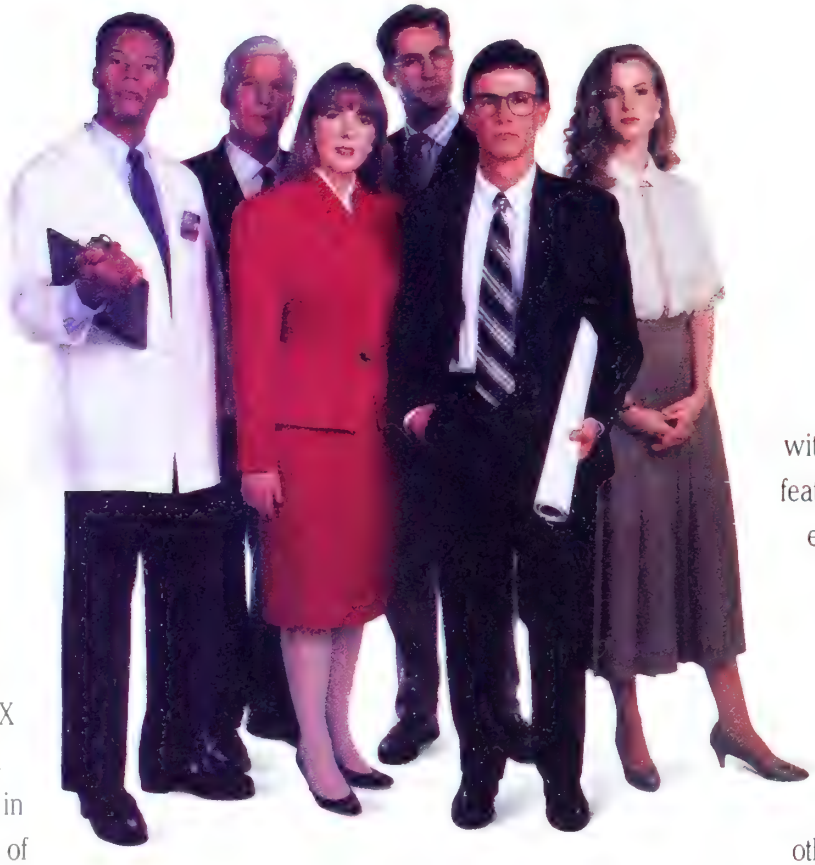

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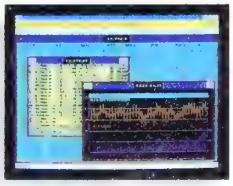

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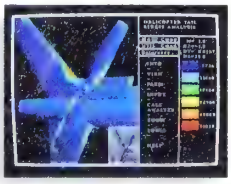

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Wallace, who chairs Lone Star's audit committee. Why didn't the board watch Stewart more closely or act sooner? "There is always a presumption in favor of the CEO that things are run the way he wants to run them," says Wallace. "When we learned of the expenses we moved to look into them and end them."

The Kaplan suite will soon be gone, as will Stewart's aircraft. But will the company fundamentally change its direction? That's far from clear. Wallace has no quarrel with Stewart's controversial asset sales—and the former CEO will remain on the board. For Lone Star's beleaguered shareholders, that may well be a sign that the slow-motion train wreck grinds on.

By Joan Deutsch in Stamford, Conn.

AIRLINES

THE DEC. 3 CRASH, WHICH KILLED EIGHT: "WORDS CAN'T DESCRIBE THE GRIEF"

THIS TURNAROUND WILL BE TOUGHER THAN AL CHECCHI THOUGHT

Unforeseen problems keep cropping up to foil his plans for Northwest

When Al Checchi engineered the daring $3.65 billion leveraged buyout of Northwest Airlines Inc. in July, 1989, he was soaring. Although he loaded the carrier with $3.1 billion in debt, the dealmaker spoke passionately about upgrading Northwest's shoddy service and patching up relations with labor. He barnstormed through employee pep rallies. He talked to Pan Am Corp. and Eastern Air Lines Inc. about buying assets. So confident was Checchi of good times, he even made a bid for Hilton Hotels Corp.

Events have brought him down to earth. The former Marriott Corp. and Bass brothers executive has learned the hard way that running an airline is a complex, volatile proposition. Skyrocketing fuel costs, fears of recession, and a bruising pair of fare wars have ravaged Northwest's bottom line. Pilots arrested for flying drunk and a fatal runway accident in Detroit have hurt its reputation. A drive to improve service is on hold. And though Checchi and partner Gary Wilson have managed the acquisition debt masterfully, big dreams of jumping on the assets of troubled carriers may fall victim to Northwest's still-fragile balance sheet.

Checchi clearly has seen the airline business at its worst. Since August, Northwest has lurched from one crisis to the next, cutting costs and trying to cope with a runup in jet fuel prices that is likely to drive the U.S. airline industry to a record loss of $1.5 billion this year. Then came the crash. When a Northwest 727 tore into one of the air DC-9s on Dec. 3, killing eight Checchi flew straight to Detroit. H copter ed between hospitals visitin injured and promising to pay their cal bills. He dispatched employe help families of those who died. Ch back tears at a press conference, N west's chairman said: "Words can scribe the grief."

The response was vintage Checc close and personal. But with the try in a state of shock, some m managers wonder whether Che team is up to the task. Since the bu Northwest has had three chief e tives—none of them airline people low investor Frederic V. Malek fil after the buyout. Then Frederic Rentschler, former CEO of Beatric bailed out. Now, the CEO slot has g John H. Dasburg, who worked Checchi and Wilson at Mar "They're gonna have to learn how t an airline," says one recently dep vice-president. "It's on auto-pilot n

Checchi and Wilson have earned er marks on the debt-management Since the buyout, they've cut the line's debt to $1.5 billion from $3. lion, largely through sale-leaseba airplanes, a complex refinancing of Northwest land in Tokyo, and by $300 million in Northwest cash. also got a $500 million loan from air supplier Airbus Industrie. Net resu former exec estimates an annual int rate of 11.5% has been cut to 10%.

A TRICKLE. Because of high fuel though, Northwest is likely to lose than $50 million in the fourth qu alone, says Standard & Poor's Corp. lyst Philip A. Baggeley. He estim cash flow is a trickle. Checchi and son used most of Northwest's ca the debt restructuring, so they hav to tap a $600 million revolving cred for working capital. That's what lines are for. But at a time whe assets of troubled carriers are c up for sale, Northwest is hardly fl

Checchi may be able to afford m moves, such as Northw Dec. 10 acquisition of of Hawaiian Airlines $20 million. But he do have the resources match United Airlines proposed purchase of Am's London routes, $400 million. Rentschler: "They missed the luxury of ha the balance sheet in b shape so that they c participate in the ind consolidation."

CHECCHI IN DETROIT: A PERSONAL TOUCH

Meantime, Northwes

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in a holding pattern with its efforts to woo back the full-fare business fliers who used to call it "Northworst." A $422 million, five-year program to improve in-flight service, including plans to redo interiors and hire 1,100 new flight attendants, is stalled.

Of course, if fuel prices continue to drop, Checchi and Wilson will get a reprieve. And in a regular environment, Rentschler thinks the former hoteliers can make up in brainpower what they lack in experience. "Can they make it work?" Rentschler asks. "The jury's still out on that. If anybody has a shot at it, these guys do." So far, however, the airline business has thrown more at Al Checchi than he ever bargained for.

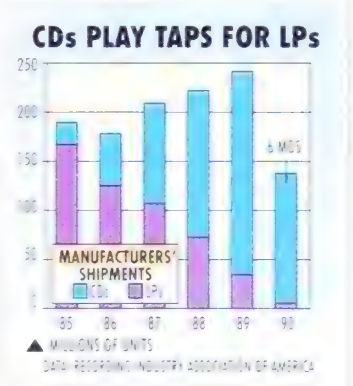
By Kevin Kelly in Chicago and Michael [illegible] in New York

THE ENVIRONMENT

SHOULD COMPACT DISKS COME IN COMPACT BOXES?

The recording industry is in an uproar over wasteful CD packaging

Like parents assembling Junior's bike, music lovers who find compact disks under the tree this Christmas will go through a ritual of their own. They'll rip off the plastic wrapping, then tear open the cardboard package, and at last find the 5-by-6-inch "jewel box" that holds the disk. The hard-plastic box stores the disk on the shelf, but all that elaborately printed cardboard goes right into the trash. "It's a wasteful package that only exists for the retailers' convenience," fumes Robert M. Simonds, chief financial officer of independent record label Rykodisc Inc.



Simonds is one in a growing chorus in the music industry demanding more environment-friendly packaging for the 220 million compact disks that will be produced in the U.S. this year. And while CD boxes contribute far less to America's waste problem than even deodorant or toothpaste packaging, the controversy puts record companies in the middle of a feud between environmentally conscious artists who produce their albums and the sharp-penciled retailers who sell them.

The flap over CDs first erupted in early 1989, when Simonds launched his Ban the Box coalition, which today includes such entertainers as Phil Collins and Bette Midler. The volume was pumped up this fall when Raffi, the popular children's singer, released a CD packed only in a jewel box. Many retailers, fearing pilferage, simply refused to carry it.

HOWLING. Now, more and more artists, such as rocker Sting, insist on cleaning up their CDs. MCA Inc.'s Geffen Records angered retailers in early December by releasing the CD of top-selling Peter Gabriel's *Shaking the Tree* album in just its jewel box. The Irish rock group U2 has told a unit of Polygram Records Inc. that its new release must come *sans* cardboard longbox. Polygram can't exactly say no: U2 holds 30% of Polygram's Island Records unit. Says Geffen marketing chief Robert Smith: "With major artists speaking up for an alternative, it's only a matter of time before things change."

The awkward-size boxes came about because they could be easily displayed in the bins record stores already used for LPs. And a longbox's bulk makes [illegible] lifting more difficult than the palm-[illegible] jewel box. What's more, calculating record merchants of the nation's 25,000 record stores and departments are howling at the prospect of spending up to $10,000 a store to revamp for smaller CD packages. But now that CDs have almost completely replaced LPs in the U.S. (chart), retailers are nervous.

Practically speaking, longboxes produce more rhetoric than waste. The boxes are made from paperboard, a renewable resource. They're recyclable. And compact-disk packaging accounts for less than six hundred-thousandths of 1% of the weight of all garbage produced in the U.S. annually, according to the Entertainment Packaging Council. "Even though the problem is minuscule," says Floyd S. Glinert, executive vice-president of Shorewood Packaging Corp. and president of the EPC, "we've got to do something." And the industry will have to set alternative packaging standards quickly, says MCA Music Chairman Al Teller, or "it will create mayhem for retailers."

STRIPPERS. A&M Records hopes to strike a compromise with retailers by packaging Sting's *The Soul Cages* release, due out in late January, in a paperboard and recycled-plastic package. At 5 by 5 inches, it's almost as big as a conventional longbox. But once opened, the package, developed by AGI Inc., called Digitrak, folds up into a jewel box-size storage case that looks like a tiny album jacket—eliminating both the jewel box and the paper waste. But because A&M can't make enough Digitraks in time for Sting's release date, the first run of the CD will go out in the traditional longbox.

Meanwhile, An Die Musik Inc., a retailer in suburban Baltimore, isn't waiting. Workers there strip CDs from longboxes before display and recycle the paper through a local Girl Scout collection drive. "People are going to steal unless you chain the CDs to the wall, so we might as well worry about the environment and the waste," says President Henry Wong. If that attitude catches on, the music industry had better listen.

By James E. Ellis in Chicago

PRINTING AGI'S NEW STING CD COVER: THE PACKAGE IS ALSO A JACKET

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In Business This Week

EDITED BY HARRIS COLLINGWOOD

DEC'S BELT MAY GET EVEN TIGHTER

▸ Struggling to reverse a three-year-long earnings decline, Digital Equipment is hitting the cutback trail. The minicomputer maker is chopping expenditures on everything from spring water to outside consultants. Leading the campaign is Senior Operations Vice-President John Smith, an old-guard executive who has been under fire for his initially slow response to sagging profits.

Smith is also moving people aside. In response to a revenue decline in the September quarter, he has engineered the reassignment of David Grainger, DEC's vice-president for U. S. sales.

Grainger still has a job at DEC. Soon, others may not be so lucky. Smith is likely to accelerate a work force reduction program that since June, 1989, has cut just 2,300 employees out of 125,800.

EX-QUASAR EXECS WIN A BIAS CASE

▸ In what is believed to be the first such verdict, a federal judge on Dec. 7 found Quasar, a unit of Matsushita Electric, guilty of racial discrimination against American employees. Quasar was ordered to pay nearly $2.5 million in damages to three former Quasar executives, all in their 50s, who brought charges of age and racial discrimination against the consumer-electronics company after they and 63 other American managers—but no Japanese executives—were fired in 1986. Quasar says it will appeal the ruling.

A MAMMOTH BUYBACK AT CBS

▸ Topping off a flurry of corporate developments, CBS on Dec. 12 announced a $190-a-share tender offer for 10.5 million, or 43%, of its shares. The buyback has a total value of almost $2 billion. CBS stock jumped 5% on the news, to 175½.

Among those tendering their shares: the estate of CBS founder William Paley, which owns 8% of the company, and CBS CEO Lawrence Tisch, who controls 24.9% of CBS through his family corporation, Loews.

But neither Tisch nor the Paley estate is likely to be cashing out entirely. Assuming the CBS tender offer is fully subscribed, both holders will own the same percentage of CBS that they do now. That's because CBS will buy back the stock on a pro rata basis, leaving holders with the same percentage holding they started out with.

FOR THE IVORY TOWER COLLECTOR ON YOUR

It's going to take acres of wrapping paper. And one heck of a lot of ribbon. But if you can spare at least $10 million to have a business school named after someone you love, you can probably figure out how to put your gift in a nice package.

The B-school-for-Christmas notion is something Mercy Coogan of the University of Maryland thought up as part of her campaign to raise money for the new College of Busine Management building. She figures that someone out the struggling to find "the ultimate holiday gift" for the p who has everything. Coogan says the school is already ta with a couple of prospects with the wherewithal to pay bit of academic immortality. And considering that bir tycoon Leonard Stern had to part with $30 million to atta name to New York University's business school, Maryl pitch may even appeal to the bargain-conscious.

POWER PLAY AT DATA GENERAL

▸ Data General Chairman Edson de Castro is leaving the floundering minicomputer company he founded 22 years ago. The company says his departure, as well as that of Vice-Chairman Herbert Richman, comes at the behest of the company's board. The moves essentially ratify the consolidation of power within the office of CEO Ronald Skates. He now has full board backing to set his own strategy for righting DG, which lost $140 million in the year ended Sept. 29. Skates is likely to continue selling assets but says he has no plans to seek a buyer for the entire company.

THIS CONTRACEPTIVE LOOKS PROMISING

▸ Norplant, the long-lasting contraceptive implant approved Dec. 10 for use in the U. S., could carve out a market in two groups of the 27.4 million American women who use contraception. The most promising customers for Norplant, made by Wyeth-Ayerst Laboratories, a division of American Home Products, are married women of child-bearing age who would otherwise choose surgical steriliz as their method of birth trol. The second grou young women or those ing a career who want t lay their first pregnancy

Wyeth will encounter competition for the im market. Most other c nies, including contrace giant Ortho Pharmaceut a unit of Johnson & Joh are at least five years be

WILL OCCIDENTAL LOSE ITS FLAIR?

▸ The death of Armand H mer on Dec. 10, at ag ends an era of swashbuc deals and high-profile pu ty at Occidental Petrol the Los Angeles-base company he headed. So oughly did Hammer mol company in his own i that Occidental's an shareholders' meeting held on his birthday.

Ray Irani, Hammer's h picked successor, is like run Oxy in a manner les to bug Wall Street. As pa an overall restructuring signed to boost Oxy's s price, Irani could sell the pany's 51% stake in packer IBP. To save cas also could cut Occiden $2.50-a-share annual divi

EDITED BY STEPHEN H. WILDSTROM

' WAS MR. FIXIT VS. THE PENTAGON -AND THE PENTAGON WON

hn A. Betti arrived as the Pentagon's procurement czar ast year carrying an impressive corporate resumé. His lan was simple: Put the techniques he had learned in ng to engineer the turnaround of Ford Motor Co. to work ashington's most bloated bureaucracy. In his new job, the er Ford executive vice-president slashed layers of man- ent, ripped away at useless paperwork, and gave pro- managers wide discretion to make key decisions.

t like many a high-powered execu- before him, Betti has learned the way that the Defense Dept. ain't —or any other business. On Dec. 12, signed as Under Defense Secretary acquisition, bringing to an abrupt what once seemed like a promising rnment career.

tti's downfall was the growing polit- uror over the Navy's stealthy A-12 k plane—a project that he allowed ll a year behind schedule and up to over its $4.8 billion budget. But eal problem was that his extensive rate experience was of little help in ering the Pentagon's unique culture. a corporation, a project as out of control as the A-12 d have been killed by top management. At the Pentagon, lane rolled merrily along. Navy investigators have found project officials were sending their superiors rosy projec- even though they had all the data needed to determine something was seriously wrong. The U. S. Attorney in St. , home of prime contractors McDonnell Douglas and ral Dynamics, is looking into possible overpayments.

ATWOOD AND BETTI: TOO TRUSTING?

URAL PROBLEM. What's most notable about the A-12 affair at policies created to make defense procurement more ent may be having a perverse effect. Empowering pro- managers may be a liberating experience for them, but ms to be costing the taxpayers more money.

a cultural problem. Program managers—generally senior officers—average just 21 months on a job. Mostly, they try to keep a project alive, then get promoted to a field command. So, efficiency and quality control suffer.

Navy Secretary H. Lawrence Garrett III admits that program managers don't want Congress or Defense auditors to get wind of problems that would jeopardize continued project funding. They "find it very hard to push bad news to the top," he says. Or, as a former Air Force procurement officer puts it: "It doesn't matter if you screw everything up, as long as you keep the dollars flowing."

Betti himself had trouble pushing bad news about the A-12 on to his bosses, Deputy Defense Secretary Donald J. Atwood and Secretary Richard B. Cheney. Investigators slammed Betti for ignoring the alarms of staff auditors. Last spring, they say, he dismissed his own cost analyst's warnings of delays and overruns as the work of a "new kid on the block." Instead, Betti took program managers and contractors at their word.

On Betti's assurance, Cheney told Congress last spring that the A-12 was doing just fine. A few weeks later, contractors came clean. "The poor Secretary of Defense must have been very much embarrassed," says Representative Robert W. Davis (R-Mich.). Now, Congress is looking for new ways to reform procurement. Ideas include reducing the military's role in weapons purchases and opening top-secret programs like the A-12 to more civilian scrutiny.

But the real problems go much deeper. Congress created the post of acquisition czar in 1986 to give a top civilian the clout needed to ride herd on the procurement bureaucracy. Betti has just become the third consecutive civilian manager to tackle the job and fail. Unless the process of weapons acquisition is radically changed, the job of bringing *perestroika* to the Pentagon is doomed.

By Russell Mitchell

TAL WRAPUP

RIFTS

he five senators being raked over the coals by the Senate Ethics mittee aren't the only public offi- s whose reputations have been ned by their relationship with for- thrift executive Charles H. Keat- Jr. Federal Reserve Chairman Alan enspan is also haunted by work he as a private consultant during the 1980s for Keating's now-defunct oln Savings & Loan Assn.

ne Fed chief has maintained that involvement was limited to prepar- and testifying in support of, a nsend-Greenspan & Co. study de- ed to calm regulators' concerns about Lincoln's real estate and junk-bond investments. But information released by the ethics panel shows that his involvement may have been somewhat deeper. Documents show that Greenspan billed Lincoln's law firm for a 1984 trip to Washington, on which he may have done some lobbying. The calendar of Senator Alan Cranston (D-Calif.) shows that he met with Greenspan and top Keating aides to discuss thrift regulation. Later, Greenspan wrote to the San Francisco Home Loan Bank Board urging that Lincoln, which he said had "seasoned and expert management," be exempted from direct-investment rules. Greenspan received $12,000 plus expenses for his services.

DESERT SHIELD

Congressional budget experts are getting nervous about how much spending the Pentagon will hide in the guise of Operation Desert Shield costs. In last fall's budget deal, Congress agreed to exempt spending for the gulf operations from this year's ceiling on total military outlays. But budget analysts worry that the Pentagon plans to count billions it would have spent anyway—such as soldiers' pay—as special Desert Shield expenses. That could protect the military from across-the-board budget cuts later this year. The Senate Budget Committee plans to look into the question in January hearings.

A QUIET COMEBACK: HOW CHINA BROKE OUT OF ISOLATION

The repression continues, but investors are returning, and relations with the U.S. have thawed

New investment in China's southern Guangdong province almost ground to a halt after the Tiananmen Square massacre. With a wrenching national austerity program already in place, the country's bastion of free enterprise was suddenly stuck with piles of unsold televisions and refrigerators. Some big foreign investors stopped production altogether.

But these days, it's almost as if Tiananmen never happened. Guangdong is booming again. Foreign investors such as Procter & Gamble and H. J. Heinz are launching new ventures. Continental Can and Peugeot are producing at full tilt, and even newly trained Avon Ladies are knocking on doors all over the province hawking cosmetics.

After 18 months of isolation imposed by an angry world, China is making a quiet comeback. Hundreds of millions of dollars in foreign investment that had dried up after the bloodbath are again flowing into China (chart). International lending agencies and banks are freeing up funds. Despite Beijing's intensified crackdown on dissidents, the European Community has lifted economic sanctions, and Japan has resumed contacts.

But the Persian Gulf crisis has given Beijing the ultimate prize: a thaw with Washington. By ... staining on a cr... U. N. Security Co... vote against Iraq, ... secured a meeting ... Foreign Minister ... Qichen with Pres... Bush on Nov. 30 a... implicit end to U. S... forts to isolate C... At the same time, ... trade with China ... reach $20 billion ... year, a 25% leap ... last year, and U. S. ... vestment is rebou...

NEW PRAGMATISM. ... putting their Chin... erations on hold, ... companies such as ... Pont, Wrigley, and ... laroid are spen... again. But the eupho... of the '80s has bee... placed by a new p... matism. Companies ... much more selec... about how and w... they do business in ... na. Those who r... back have few illus... that China will ope... politically. And ... recognize that cent... gal forces are tea... at the Communist ... ant's very fabric ... China's provinces fight with Beijing ... more economic freedom.

China's reemergence is all the ... remarkable because of the leader... crisis that grips Beijing. Deng Xiaop... 86, has not been seen in public since ... July, leaving Beijing locked in a mac... death watch. If a series of weak, elc... leaders succeed Deng, they may ... have the power or desire to carry ... needed reforms. But China despera... needs foreign funds to fuel its econo... "Whatever the outcome, the position ... ward foreign investment will still be ... vorable," says Gaston R. Levy, Gil... Co.'s executive vice-president for in...

nal operations. He is negotiating to a second razor blade factory in a, a $20 million project.

far, Beijing's leaders have man- to maneuver out of diplomatic iso- while hardening their line on hu- rights. On the eve of Qian's visit to hington, the Chinese authorities ed two prominent dissidents with ng to overthrow the rnment, a crime pun- le by death. The key ijing's strategy is a n, *"nei jin, wai* "—meaning "repres- within, harmony the outside."

TANCE. But China's gy could backfire. eason is that its hu- ights record could ke a U.S. backlash the gulf crisis is re- d. That issue will large in Congress' on on whether to renew China's tered access to the U.S. market, comes up for review in mid-1991. China has a $10 billion trade sur- with the U.S., third largest after and Taiwan, the congressional is certain to be fierce.

other risk is that reopening the of investment could unleash desta- g forces. Because most investment centrated in coastal provinces, they ecoming increasingly bold in resist- eijing. Most remarkably, provincial rs have rejected Beijing's latest Year Plan. When China's Commu- eaders gather on Christmas Day crucial Central Committee meeting e economy, they will confront a being tugged apart at the seams. na's unity as a sovereign nation is y under immediate threat. Beijing ommands a potent military, which be the only institution that binds ountry together. But in an eerie arison with a century ago, the ry appears to be balkanizing into ent spheres of influence. Then, g the Treaty Port era, Europeans Americans controlled Chinese en- . Now, the foreigners have no po- control, but they are pumping y into provinces along the coast. 40% of foreign investment in Chi- now controlled by the provinces. ngdong province is leading the Foreign investment in this region ring Hong Kong is surging. Nearly on of its 60 million people work for Kong-based companies. P&G is g ahead with a $15 million plant akes paper products. And Heinz is ng a $9 million expansion in its ood operations. Taiwan's invest- is concentrated in Fujian province, about 150 Japanese companies are active in Dalian, the heart of old Manchuria in Liaoning province. South Korea's main interests are also in Liaoning, and in Shandong province, as well.

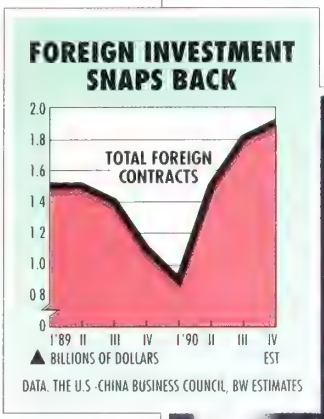
European carmakers are also bullish. With Beijing's blessing, Volkswagen agreed in November to be partners in one of China's largest automotive joint ventures in northern China. The $920 million plant will produce 150,000 Golf sedans a year. France's Citroën also plans to invest $400 million in Wuhan to make 150,000 autos.

China's coastal areas are enjoying far greater prosperity than the landlocked provinces, where poverty has traditionally been greatest. Faced with a record deficit of $2.8 billion, Beijing is unable to transfer wealth to bail out these poorer regions. To fight back, many inland regions have set up trade barriers, hoarded raw materials in scarce supply, and diverted goods slotted for the state to the free market.

CROSSROADS. To lure investment away from the freewheeling provinces, Beijing's leaders have come up with the East Huangpu River project, known as Pudong, east of Shanghai. In the spring, Du Pont became the first company to move into Pudong with a $25 million joint venture to produce a rice herbicide. But it's still iffy whether Pudong will ever take off. Beijing is also urging investment in Tianjin, a coastal city 80 miles southeast of Beijing. IBM announced in August a $10 million joint venture to manufacture computers there, while Motorola Inc. is also negotiating a deal to produce communications equipment.

As the coastal provinces amass more wealth, while the inland ones languish, pressures are building on the Communist regime. That will not necessarily spell political liberalization. But it does mean that Beijing will eventually have to shake itself from its paralysis—or risk losing control. It also means the debate over U.S. policy toward China will be far more complex than ever before. The most potent charge that President Bush and U.S. investors will face is that they acted too hastily in rekindling ties with a dictatorial regime. But if they can show that renewing links with China actually undermines the center's totalitarian reach, their argument could carry the day.

By Dinah Lee, with Lynne Curry, in Beijing, Pete Engardio in Guangzhou, and Joyce Barnathan in New York



AVON LADIES IN GUANGDONG: RENEWED INVESTMENT HAS MEANT NEW WEALTH

JAPAN

HONDA'S NIGHTMARE: MAYBE YOU CAN'T GO HOME AGAIN

It's far short of a goal to sell 50,000 U.S.-made cars a year in Japan

Three years ago, Honda Motor Co. made a big prediction. Kicking off a major expansion of U. S. production capacity, Tadashi Kume, then Honda president, proclaimed that by 1991, Honda would be exporting some 50,000 cars built in Ohio back to Japan. The idea had great appeal. The exports would help ease the U. S. trade deficit, fatten Ohio workers' wallets, and allay U. S. fears of working for the Japanese.

But these days, the forecast is ringing hollow. Honda is exporting only a fraction of the U. S.-made cars that Kume predicted. Japan's No. 3 auto maker badly miscalculated consumer tastes in its home market, where it is being tightly squeezed by competitors Toyota Motor Corp. and Nissan Motor Co.

It's a curious turn of events. Honda is a clear winner in the American passenger-car market, where it outsells its Japanese rivals (table). With a 9.3% market share, Honda now tops Chrysler Corp. in the U. S., and its Accord model is the best-selling American car. But this year, Honda will ship only 12,000 Accord Coupes homeward. Next year, exports of its newly introduced Accord Wagon models will edge that number up to 18,000, still far short of the goal.

NOT SPORTY. Honda just can't seem to duplicate its U. S. success in Japan. For one reason, it is now exporting a conservative car model that has limited appeal in that fashion-conscious country. Honda's original reimport plan allowed for several models, but the company settled on the functional but less flashy Coupe. To enhance what it thought would be hot demand for imported cars, Honda slapped badges depicting American eagles on its Coupes, and dealers draped red and white "U. S. Made" signs on the windshields.

The campaign is flopping. "I don't think the target is right," says Masami Naito, an Accord dealer in Tokyo. He finds that customers shopping for a two-door car would rather go for Honda's sportier Prelude, which isn't made in the U. S. Even Honda's new president, Nobuhiko Kawamoto, concedes the Wagon, designed for the U. S. market, won't be a big seller in Japan, where it will be unveiled within several months.

And flogging U. S. exports isn't a top priority for executives back home. Honda is battling just to keep its Japanese market share. The Japanese economy is winding down, deflating a three-year-long auto boom. In November, industry sales, excluding minivehicles, slipped for the first time in 21 months, down 2.7% from a year ago. Honda forecasts a slight decline in its vehicle sales in Japan this year. Now, says Kawamoto, "we have to throw our weight the domestic market."

Even that will be a tall order. Honda has traditionally been the weakest of Japan's main passenger-car producers. Both Toyota and Nissan have much larger sales forces. Toyota has 45,000 people at 4,500 dealer outlets in Japan, while Nissan has 28,000 in sales at 2,200 dealer outlets. That's considerably smaller than Honda's sales force of 10,500 at 2,648 outlets. It is a serious handicap in a country where customers expect top-flight service, including regular courtesy visits by auto salespeople.

NEW OUTLETS. So far, auto prices are holding firm. But if dismal sales ignite a discount war, Honda would get squeezed tighter. Worried about the future, Kawamoto plans to add 5,000 more service staff and 5,000 salespeople, an easy task in the current tight labor market.

Honda also wants to boost the number of outlets each dealer runs, another tough prospect because rents are very high. To help dealers, Honda is scouring land for new outlets and making loans for expansion. It plans to unveil a sporty new car next year, probably a sporty model aimed at the Japanese market.

Honda also could take steps in the U. S. to boost exports to Japan. "We really want to keep our promise," says Kawamoto. Factories in Ohio at Marysville and East Liberty have enough manufacturing flexibility to shift to sporty cars that might sell better at home. But Kawamoto adds, "we're not going to change just for imports." Instead, Honda is hoping a spiffed up version of the Accord will be made in Ohio starting in 1993 and will be a hot seller both in the U. S. and Japan. But it may take more than that for Honda to make the grade as a U. S. exporter.

By Karen Lowry Miller in Tokyo, with James B. Treece in Detroit

HONDA LEADS THE PACK IN U.S. AUTO SALES...

	1990 unit sales*	Percent change from 1989
HONDA	805,402	11.7%
TOYOTA	712,632	15.9
NISSAN	423,833	-12.2
MAZDA	211,518	1.2
MITSUBISHI	138,299	40.8

*First 11 months

...BUT IS A DISTANT THIRD BACK HOME

	1990 unit sales*	Pe... ch...
TOYOTA	1,756,621	8....
NISSAN	986,352	7.
HONDA	394,908	1.
MAZDA	308,554	18.
MITSUBISHI	160,285	14.

DATA *WARD'S AUTOMOTIVE REPORT* JAPAN AUTOMOBILE DEALERS ASSN.

> Honda's small sales force is a serious handicap in Japan, where customers expect such services as home visits

URNING THE HEMISPHERE INTO FREE TRADE BLOC

n's 'Enterprise for the Americas' aims to spur trade and investment

dministration trade negotiators returned from Brussels empty-handed on Dec. 8 after GATT broke down. But the President elf was laying the groundwork for ternative U. S. trade strategy 6,000 away. On a six-day tour of South ica, Bush promoted Enterprise for Americas, his sweeping set of pro- s to lower trade and investment ers between the U. S. and Latin ican countries. Such deals, along the prospect of a U. S.-Mexico rade agreement, could put in the last piece of a 33-nation bloc stretching from Point w to Patagonia.

shington now has an opening ver had in the past. Latin ican leaders from Argenti- Carlos Menem to Venezuela's s Andrés Pérez are walking from their traditional stat- nd protectionism. Almost all utting tariffs and subsidies, g off state-run businesses, urning to private investment e engine of economic growth.

HELP. What these changes y is that the hemisphere's mies, north and south, are ning increasingly similar. are ending the century with a d approach to development," Enrique V. Iglesias, president ie Inter-American Develop- Bank. The result is likely to vast expansion of the $120 in two-way trade between . S. and Latin America.

e key to the Bush plan is a illion fund, with contributions from e and Japan. It would ensure that mic reform keeps rolling by im- ig conditions for private invest- —for example, by helping pay for ning of workers laid off by privati- s. The fund could pave the way for privatizations such as Argentina's sale of its telephone system and ational airline to European buyers Mexico's sale of a major stake in mos de México to a group includ- outhwestern Bell Corp. The grow- ave of privatizations has become nost significant trend in the hemi- e," says Alan J. Stoga, managing or of Kissinger Associates Inc., a lting firm.

re are also new efforts to ease the region's staggering debt burden, particularly for small countries. The U. S. is offering concessions on repayment of the $12 billion owed to U. S. government agencies.

But the biggest spur to new trade and investment is a series of bilateral "framework agreements" that the U. S. is signing with individual countries. They will provide a mechanism for reducing trade and investment barriers on a case-by-case basis. For example, a new accord with Chile—one of six signed so far—spells out an "immediate action agenda." The U. S. will look for ways to ease nontariff barriers against Chilean farm products in return for better protection of intellectual property rights of foreign companies in Chile.

The agreement stirred a move by Chile's Congress to strengthen patent protection for pharmaceuticals. And in Brazil, a government-appointed commission is drawing up a new intellectual property code. If, as expected, other Latin American countries follow suit, the reforms could attract a wave of new investment by U. S. pharmaceutical makers that have been wary of the region. "When intellectual property protection is awarded, we'll see substantial changes in investment and the formation of partnerships," says R. A. Cage, an Eli Lilly & Co. vice-president and former chairman of the Pharmaceutical Manufacturers Assn.'s working group for Latin America. "We'll see a much healthier local and multinational industry."

CHIPPING AWAY. Still, there's a long way to go. Latin American economies remain layered with restrictions built up during decades of statist policies pursued by military and civilian governments alike. Brazil, for example, is only slowly dismantling a protectionist "market reserve" system that limits imports of data processing gear while barring foreign investment in that sector. The result for General Motors do Brasil has been that it makes do with only 200 personal computers, compared with the 2,000 to 3,000 a comparable company would have in a freer market.

BUSH WITH VENEZUELA'S PEREZ: PEELING AWAY PROTECTIONISM THAT HAS BUILT UP OVER DECADES

Yet Brazilian President Fernando Collor de Mello is also spearheading one of Latin America's most aggressive moves to expand markets. Brazil is setting up a home-grown free trade area with Argentina, Uruguay, and Paraguay, and the four countries are negotiating jointly with Washington to form part of the larger hemispheric trading network. "We are not accustomed to talking among ourselves," says Julio Zelner, a Brazilian Foreign Ministry official who is negotiating the pact. "But as it turns out, we are learning how to form a common market." After the fiasco in Brussels, that's encouraging news.

By Jeff Ryser in Sao Paulo, Amy Borrus and Paul Magnusson in Washington, and John Pearson in New York

EDITED BY JOHN PEAR

LECH WALESA HAS A HARD SELL: MORE AUSTERITY

Lech Walesa may be taking on the world's toughest marketing job. His 38 million compatriots are still reeling from their first dose of economic shock therapy. Now, as president-elect, Walesa must persuade them to undergo even harsher treatment to fulfill his campaign pledge of speedy economic reform. "He's got to act fast," says Kristof Zorde, a Danish banker who advises the Warsaw government. "There will be no honeymoon period."

Walesa won 74% of the vote in the Dec. 9 runoff against dark horse Stanislaw Tyminski, a Canadian emigré businessman. But he had been shaken by the Nov. 25 first round, where he garnered only a meager 39%. The surge of popular support for Tyminski, who offered a get-rich-quick economic policy, was a warning to Walesa to distance himself from the former government's painful austerity while offering some of Tyminski's vision of prosperity.

WALESA AND HIS WIFE CELEBRATE

BREAKING NEW GROUND? Choosing a helmsman to steer economic reform will be his first key task. A leading contender is Johns Hopkins University-trained Finance Minister Leszek Balcerowicz. Balcerowicz slashed Poland's hyperinflation to 50% annually, down from more than 1,000% last January. But he has been tarred by the resulting 40% drop in real incomes that led to Prime Minister Tadeusz Mazowiecki's defeat by Tyminski. By dumping Balcerowicz, Walesa would risk reigniting inflation and alienating Solidarity's intellectual wing, which backed Walesa in the runoff. But keeping Balcerowicz might prove politically impossible. "The popular vote was a veto against Balcerowicz," says Jacek Maziarski, a spokesman for Walesa's Center Alliance Party.

With or without Balcerowicz, Walesa wants to improve conditions for private business quickly with loans and lower taxes. He also hopes to speed up the sell-off of state companies. Mazowiecki's team managed to put only five operations o block worth about $50 million. Poles queued up to buy sh when the public offering began on Nov. 30. But the sale far short of plans to privatize several hundred companie

Walesa's sweeping privatization schemes could serve a model for the rest of Eastern Europe. One plan aim privatize Poland's 500 largest companies within three yea calls for foreign financial institutions to set up mutual f that would act as new "owners" of privatized companies. Vouchers distrib to individuals, banks, the social sec fund, and the state could be redeeme shares in the mutual funds, giving indirect ownership of the companies. A er fast-track proposal would bring in te of foreign experts to sell off entire in tries over a six-month period.

While Walesa is stroking business, a workers are threatening to strike fo wage hikes, and farmers want new s dies. Walesa has promised to govern land's restless democracy "like a she But it's unclear how iron-fisted he wi against his former union constituents. a while, purging former Communists government may divert attention from nomic woes—but at the cost of losing m technocrats who actually run the cou "The worst still lies ahead—the next t to four months will be a trial," says Maziarski. "Instea political struggle, we are now facing social anarchy."

Some of that unrest may be channeled into a reborn Soli ty. Its leaders are now scrambling to reshape it from broad political movement that Walesa led into Eastern rope's first Western-style trade union. As a militant u Solidarity could cause trouble for Sheriff Walesa—but it c also provide social cohesion in a time of turbulent chang

By Gail E. Schares in Bonn, with Lynne Reaves in Wa

GLOBAL WRAPUP

SOUTH KOREA

A big Hyundai billboard greets travelers on the highway from Sheremetyevo Airport into Moscow, and a Samsung sign looms over Moscow's Arbat shopping mall. They signal the growing trade and investment that are strengthening Soviet-South Korean ties—and indirectly pushing North Korea toward a warm-up with the South. During a mid-December visit to Moscow, President Roh Tae Woo planned to sign trade and cooperation agreements with President Mikhail Gorbachev, including massive credits from Seoul to supply consumer goods and industrial plants to the Soviets. The accords follow the Sept. 30 establishment of diplomatic ties between the two countries. Moscow needs to shore up its sagging economy. And by ending decades of hostility toward Seoul, the Kremlin also aims to promote détente and stability in the Korean peninsula as part of its bid to expand Soviet influence in the Asia-Pacific region.

For Roh, a major goal is to open a vast potential market in the Soviet Union now that South Korean exports to the U.S., Europe, and Japan are stagnating. Roh was accompanied by top executives of Korean business groups that have been negotiating major deals, from a $30 million Hyundai Corp. joint venture in forestry to Lucky-Goldstar Group's $300 mill Korea Trade Center in Moscow. there's an economic need, politics follow," says Hyundai founder Chu Ju-Yung, a promoter of expanded t with Moscow.

With relations warming, Roh wa the Soviets to use their influence nudge North Korea to normalize re tions with the South. Meanwhile, re tions are improving between Seoul a Beijing—which is prodding North K rea to open its closed regime. And ev long-standing tensions between Jap and North Korea are easing. The fl ry of diplomatic initiatives eventua could bring détente to northeast As one of the last arenas of the cold w

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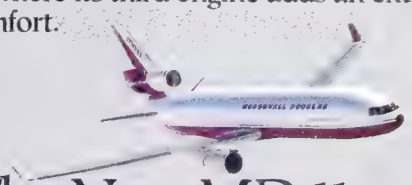

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Ever wonder why NIKE products perform so well? One reason is that they're designed with the latest technological advances. A claim that NIKE can now also make about their communications system.

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THE POWER IS ON

TECHNOLOGY

WILL THE 21ST CENTURY BE BATTERY-OPERATED?

Clean, efficient fuel cells may soon be ready for widespread use

In 1959, William H. Podolny, a United Technologies Corp. engineer, proposed a revolutionary way to generate electricity: He envisioned giant batteries that could convert fossil fuel into clean power—the kind that eventually powered the space shuttle. Impressed, UT set up a fuel-cells research group and, in 1984, spun off International Fuel Cells Inc., with Podolny at its helm. Now, IFC finally has a commercial product—a 200-kilowatt power plant that generates enough electricity for at least 50 apartments with little pollution. Seven other companies in the U. S., Japan, and Europe are hot on the trail. "Sometime after the turn of the century," predicts David M. Moard, fuel-cells marketing director for Southern California Gas Co., "fuel cells will be the equipment of choice."

Until recently, fuel cells were banished to an energy black hole: Although they were quiet, clean, and efficient, the cost of materials made them too expensive for normal use—and they were unreliable. In the 1960s and 1970s, research funding was provided mainly by gas companies, who saw fuel cells as a new market since they can be powered by natural gas. But in the 1980s, as the technology advanced, everyone jumped in: The combined Energy and Defense Depts., the Electric Power Research Institute, and a dozen companies have spent nearly $1 billion on fuel-cell research.

Fuel cells work a lot like batteries. Hydrogen-based fuel and air cross either side of an anode-electrolyte-cathode sandwich. As the hydrogen diffuses through the platinum-coated anode, electrons are stripped off, creating electricity. Hydrogen ions combine with oxygen ions in the air, producing steam as a by-product. Nothing burns, so there's little pollution. The biggest obstacle is price: IFC's 200-kw plant—consisting of 200 cells, each producing 1 kw—costs $576,000.

To offset this drawback, gas companies are making deals. For instance, Southern California Gas is installing IFC plants at no money down, and promising electricity for 10% to 15% less than utility would charge, "because we fe the technology needs to be brought fo ward," says Moard. SoCal has placed IFC units, three at Kaiser Permanen hospitals, where energy specialist To Damberger expects to save up to $4 m lion over a 20-year contract. Other uti ties have ordered 46 more IFC units to b placed in commercial buildings.

Energy Research Corp. (ERC) in Da bury, Conn., also is offering sweet dea to buyers of its $16 million, 2-megawa demonstration plant—which will provi 10 times the power of IFC's unit. If ERC plant is a commercial hit, buyers of te plants will receive up to $32 million bac based on a formula tied to future sale So far, says ERC President Bernard Baker, there's one taker: the Electr Dept. of Santa Clara, Calif., backed by group of utilities. Some 20 more utilitie are interested in a similar deal with cheaper plant that will b available in 1996.

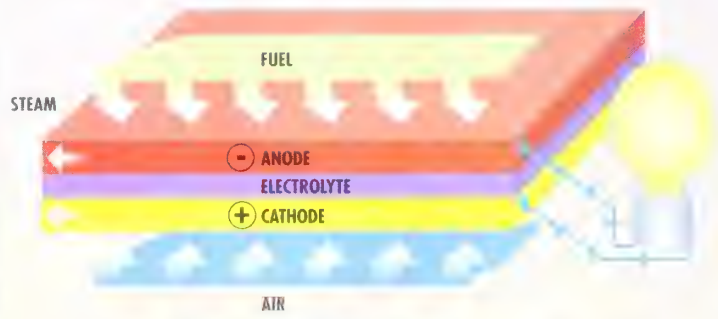
If fuel cells work as e ficiently as planned—co verting up to 60% of th energy in natural gas t electricity vs. 30% for boi er-fired power plants—their market could blo som. With the added pre sures of rising fuel cost and stricter clean-air law the Energy Dept. est mates that demand coul rocket to 10,000 Mw ov the next decade—equal t 1.5% of current U. S. ele trical output. At $1,00 per kilowatt to build plant, that's a $10 billio market.

GOOD BETS. So far, fue cell makers are workin with four technologie They differ mainly in th type of electrolyte use the operating temperatur of the fuel cell, and its e ficiency. Phosphoric aci based cells—the type no available—run at 400F with an efficiency of 36 Proton-exchange cell achieve 50% efficiency an operate at around 200F cool enough to be used i homes or vehicles (pag 41). Both of these cell can generate heat as we as power, bringing tota efficiency to 80%.

For multimegawat plants—designed for util

HOW A FUEL CELL WORKS...

Hydrogen atoms from a fuel such as natural gas diffuse through an anode. The anode strips off electrons, producing an electric current. The circuit is completed when electrons return to the cathode, where they are picked up by oxygen atoms from air. Hydrogen and oxygen meet and combine in the electrolyte to form steam



...AND SOME LEADING CONTENDERS

Companies are developing fuel-cell-based power plants around one of four designs. These vary mainly in the makeup of the electrolyte, which determines the operating temperature and efficiency of the cell

Electrolyte	Companies	Main market	Available
PHOSPORIC ACID (PAFC)	International Fuel Cells, Fuji Electric, Hitachi, Mitsubishi Electric	Apartments, hotels	Early-to-mid 1990s
MOLTEN CARBONATE (MCFC)	Energy Research Corp., M-C Power, International Fuel Cells, Hitachi, Fuji Electric	Utilities, commercial buildings	Mid-to-late 1990s
SOLID OXIDE (SOFC)	Westinghouse Electric	Utilities, commercial buildings	2000
PROTON EXCHANGE MEMBRANE	Ballard Power Systems, International Fuel Cells	Homes, cars, buses	Mid-to-late 1990's

DATA: GAS RESEARCH INSTITUTE, ENERGY DEPT.

or commercial buildings—molten-onate fuel cells are a good bet. They rate at 1,200F, with up to 60% effi-ncy. Solid-oxide cells operate at 0F, but use a cheaper ceramic elec-yte. And if the heat from these nts can be used to power a turbine, r efficiency could hit 80%.

GREENHOUSE. Whatever the ap-ach, the fact that fuel cells work nout combustion offers big environ-ntal advantages. For one, they mini-e the production of carbon dioxide—a enhouse gas. Air pollutants such as ogen oxides and sulfur dioxide aren't duced, either. Some pollution is gen-ed when methane is initially pro-ed and when unused gas is burned. these amounts are way below the t stringent standards.

espite their advantages, fuel cells face obstacles. For one thing, cur-t cells degrade and must be replaced in five years. For most customers, easier to buy power from an electric utility. And in some parts of the country, electricity is so cheap that early fuel-cell plants may not pay for themselves.

But that could change with mass production. Fuel cells presently are virtually handmade. "It's a chicken-and-egg situation," says Graham L. Hagey, manager for the fuel-cell program at the Energy Dept. Manufacturers don't want to gear up production without strong demand. But utilities are leery of ordering until prices fall. Now, cheaper components are edging costs down. And the recent orders for fuel cells should speed the use of automation in making them.

One long-term allure of fuel cells is their ability to reduce U. S. dependence on foreign oil. In fiscal 1990, the Energy Dept. spent $38 million on research aimed at powering fuel cells with coal gas, which Hagey calls "the cleanest way to use coal." With such advantages to recommend them, fuel-cell plants may have a bright and powerful future.

By Elisabeth Kirschner in New York

PUTTING A 10-KILOWATT ENGINE UNDER A PONTIAC'S HOOD

Fuel cells help power the space shuttle, they're showing up at utilities, and they may be in mes someday. But to Harold E. lms, chief of vehicular-systems de-lopment at General Motors Corp.'s lison Gas Turbine Division, their real tential lies in charging up electric rs. Helms is heading a two-year, $14 llion project to develop a 10-kilowatt el cell for just that purpose. "They e the wave of the future," he says.

Longevity is one of the things Helms es about fuel cells. The batteries in ectric-car prototypes can go for, at ost, 50,000 miles before they need to replaced. They also need to be re-arged after only 120 miles or so. But el cells powered by methanol could for 200,000 miles with only minimal aintenance, says Helms. And they ould use only half the fuel of internal mbustion engines. Best of all, fuel lls emit none of the noxious fumes d only half the carbon dioxide of to-ay's engines.

AFE ACID. For safety reasons, fuel lls designed for spacecraft and indus-y can't be put in cars. They operate high temperatures using extremely rrosive electrolytes. Molten-carbon-e fuel cells, for example, run at 200F and "the acid could eat the skin ff bones," says Helms. He is experi-enting with a so-called proton-ex-hange fuel cell that operates at a odest 212F. Its electrolyte is sulfonic acid, which scientists at Du Pont Co. have learned to bond with a Teflon-like material to form a membrane. This membrane "locks up" the acid so it can be handled safely.

Still, there are lots of hurdles. "Today, the fuel cell is not practical from a cost standpoint," concedes Helms. The membrane alone costs about $1,000 a square foot, partly because it is made in such low volumes and partly because platinum is sprinkled on its exterior to help conduct electricity.

To get the cost down, GM has hooked up with Dow Chemical Co., which is making a cheaper form of the membrane. Helms is hoping the cost will drop to about $5 a square foot in mass-production volumes. He's also trying to reduce the amount of platinum to the level used in catalytic converters. The goal: Get the cost of the fuel-cell system down to about $2,000—competitive with an internal combustion engine.

Another obstacle is that, at 700 pounds, the fuel-cell unit is nearly twice as heavy as a typical four-cylinder engine. And it would have to be teamed with weighty batteries to give a car enough reserve power for rapid acceleration and hill-climbing.

Still, Helms is optimistic. By 1996, after a second phase of research, he plans to have a prototype car with an 80-kw fuel cell. The next question: Can he make it roar like a Corvette?

By David Woodruff in Detroit

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Developments to Watch

EDITED BY EMILY T. SMITH

THIS PAINT REALLY DOES PRODUCE 'WARM TONES'

Someday, a painted wall might start a heat wave. Rustol Chemical Corp., a Japanese company, has developed a paint that generates heat when voltage is passed through it. Depending on how high the current is, the paint can produce temperatures ranging from 86F to 1,472F. Now, companies in Japan, Britain, and the U. S. are testing the paint for everything from heated toilet seats to ice-free runways. An Italian designer is even trying to silkscreen it onto fabric to make battery-powered heated clothing.

Called MRX, the paint is derived from a coating Rustol developed to radiate heat away from high-temperature surfaces such as chimney stacks and steam pipes. When a voltage ranging from 6 to 100 volts, depending on the desired temperature, crosses over the paint, it emits heat waves. It can be applied just like house paint, and in fact its first use is on a demonstration house in Japan that has a heated roof, floors, ceilings, and driveway, all coated with MRX.

OZONE EFFECTS: THEY DON'T CALL IT THE TROPIC OF CANCER FOR NOTHING

If you're worried that the thinning ozone layer will cause you to be zapped by harmful ultraviolet light, there's good news and bad news. The bad news is that UV radiation from the sun, without any ozone-layer thinning, is already strong enough to weaken the immune system, according to animal experiments done at George Washington University. And when GW dermatologists Edward De Fabo and Frances Noonan exposed mice to the higher levels of UV light that would result from a thinning ozone layer, they found that the immune system damage—which could lead to skin cancer—would increase by about 2% for a 10% diminution of the protective ozone.

The good news is that those who live in temperate regions have little to fear. Measurements by geophysicist John E. Frederick of the University of Chicago show that the ozone layer over Philadelphia or New York would have to thin by more than 20% before levels of harmful UV light reached the amount already experienced in more tropical Rio de Janeiro.

LONG-DISTANCE CALLS BY LASER

Calling Europe or Japan may soon be nearly as inexpensive as dialing a local number. That's because recent breakthroughs point the way to transoceanic cables with unprecedented capacity. MCI Communications and British Telecom have teamed up to span the Atlantic by 1993 with these new-generation cables, while AT&T and Japan's KDD are working toward a transpacific hookup by 1996.

The key is a rare-earth element called erbium. Add it to a couple of meters of optical fiber, and that section of fiber turns into a laser. Incoming pulses of light trigger the la laser, which amplifies and then retransmits the light sig That means submarine cables will no longer need repea every 20 miles or so. Moreover, the microchip innards of t expensive $25,000 electronic boxes have a fixed maximun pacity. Once this is reached, a new cable has to be laid.

By contrast, fiber-optic lasers, spliced at intervals, will a matically adjust to ever-higher signal speeds. Each "f pair" in the new cables will start out with a speed of 2.4 bi pulses per second. That's about equal to the combined capa of all current transatlantic cables—and the new cables have multiple fiber pairs. Moreover, by upgrading the "tr ceivers" on land at both ends, each fiber pair could eventu carry a trillion bits per second.

WOOD THAT RESISTS FIRE —AND ROT

Owners of more than a million apartments, condos, townhouses in the Eastern U. S. face an annoying costly problem: Their roofs are rotting. Why? To prevent spread of fire from adjacent homes, the plywood under t shingles was treated with a fire-retardant chemical. It t out that the normal heat in attics causes the chemical to b down and build up acids that weaken the plywood.

Weyerhaeuser thinks it has the answer. It has purch exclusive U. S. distribution rights for Pyrotite, a fire-retar laminate owned by Barrier Technology Inc. in Vancou B. C. Unlike conventional chemical treatments, which char wood to prevent fire from spreading, this inorganic cera based laminate, containing 50% water, forms a barrier tween the wood and the fire. When heat builds up, the l nate releases steam, which retards any fire. Weyerhae plans to market Pyrotite-coated plywood as Blazeguard if product gains approval from the Chicago-based Building cials & Code Administrators International early in 1991.

A RED-LETTER DAY FOR THE FOOD-DYE INDUSTRY

The history of red food coloring is anything but rosy. In 1976, the Food & Drug Administration yanked from the market Red Dye No. 2 when lab studies showed that it caused cancer in animals. Now Red Dye No. 40 is the most widely used red chemical coloring in the U. S., but pressure is building to ban it, too.

This time, Aunt Nellie's Farm's Kitchens Inc. and researchers at the Universit Wisconsin at Madison have an alternative—a beet that yiel pounds of red pigment per ton, three times the amount duced from a standard beet. Beet juice already is used to c salad dressings, ice cream, and other foods, but can be r costly than synthetic dyes because more is needed to ach comparable color intensity. David C. Lau, president of A Nellie's, the largest U. S. beet processor, expects the su beet to be much more competitive. He predicts sales of b to coloring makers will sprout by 50 times in the next 10 y Aunt Nellie's plans to begin selling the new coloring in 1

Regular lubes not up to the job? Try syn power.

A machine that breaks down too frequently, that chews up gears and bearings, may be a machine that's asking for help.

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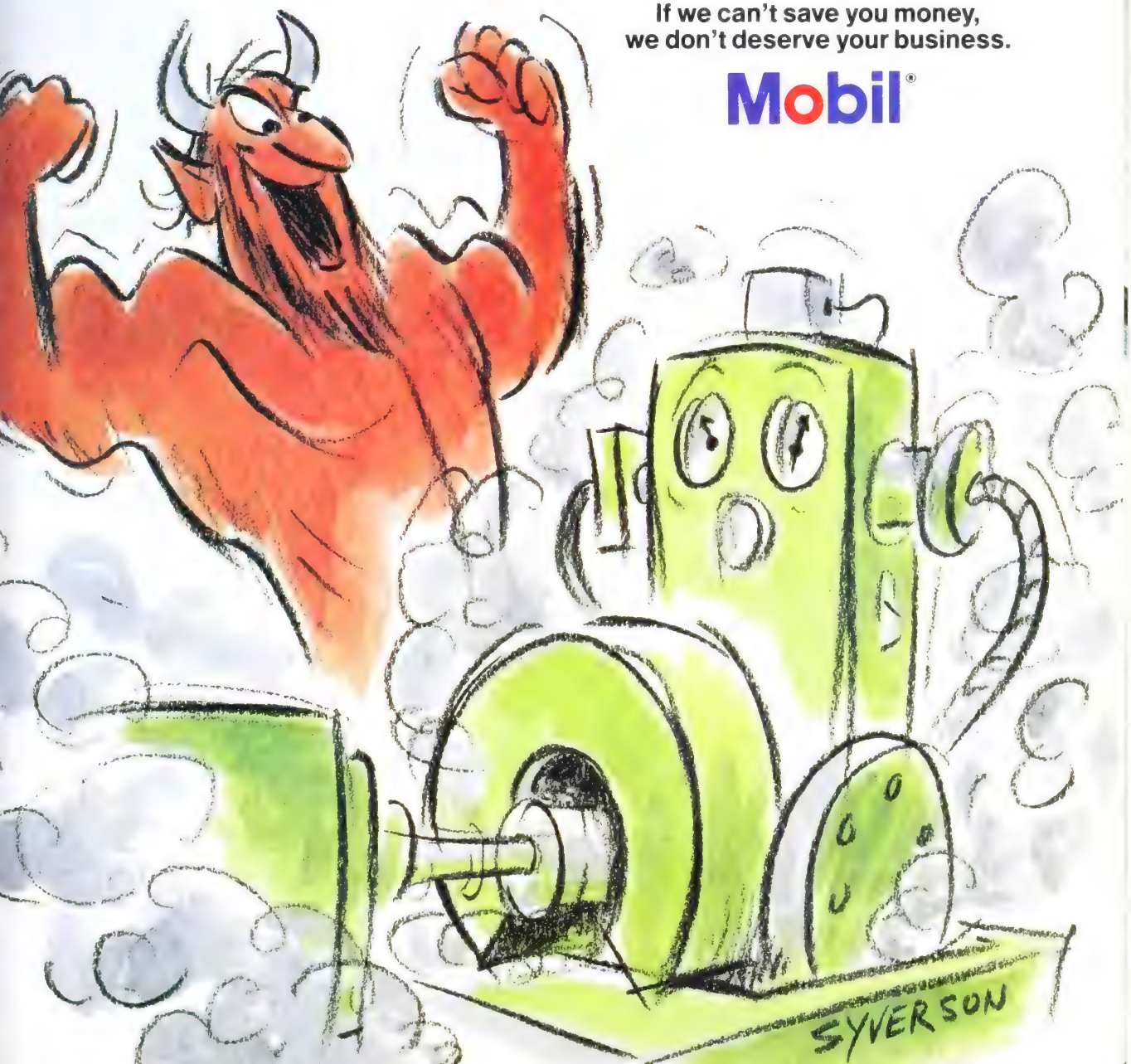


Business News From

ITALY 1990

Italy plays a key role in a new Europe

By Rose Darby

In the rapid evolution sparked by Euro-an unification, Italy stands as the key-ne of the Mediterranean Basin.

On an international scale, the past ar was decisive. From July 1 through cember 31, Italy took on the task of the ropean Economic Community Presi-ncy. Because of this, Italian know-how d flexibility were applied to overcome haining obstacles to a free and work-g European union.

For instance, it was Italian policy akers and statesmen who helped shape final stages of EEC integration and tical pan-European environmental iatives

Further, because of the EEC Presi-ncy, Italian financial planners were ntral in forging the first steps toward single European currency and the attendant formation of a European Central Bank.

On a domestic scale during 1990, Italy took some small, long awaited steps that add up to quantum leaps in terms of their future impact.

For example, a few weeks ago the Italian Parliament passed the country's first anti-trust legislation. These rules will be vital in the regulation and smooth running of Italy's burgeoning merger & acquisition and leveraged/management buyout markets

In early May 1990, Italy approved the final stages of financial liberalization begun three years ago. These last norms allowed Italian residents complete free-dom in foreign exchange operations and in holding checking or savings accounts in other countries.

The same rules also liberalized the use of all short term financial instruments with 6-months maturity or less. This was the only remaining restriction on the free trade of financial instruments in or out of Italy

Also during the past year, Italian legis-lators gave the green light to much awaited liberalization in banking. The rules clear the way for freer proliferation of branch networks, and critical increases in capital ratios, making it possible for the first time for Italian banks to muster the necessary resources to compete with much larger European banks, post-1992.

Also early in 1990, the most important change to have taken place on the Italian financial scene was the lira's entrance into the European Monetary System's narrow band of currency fluctuation. This critical move meant that Italian interest rates would have to come down to the level of rates abroad. And indeed, that was the case, as capital flowed into Italy at

ITALY 1990

more equitable exchange rates, interest rates were forced to float downward in tandem.

Other important changes currently being debated include legislation providing for complete stock market integration and regulation, an insider trading act, and a law regulating public tender offers which will protect small shareholders.

Clearly, much remains to be done in securing Italy's place in the new European order. But over the past year, Italy has adapted itself to a changing financial and industrial milieu with deftness and flexibility.

Andreotti, Italian Prime Minister

Besides being one of Italy's most accomplished politicians, Prime Minister Giulio Andreotti, at age 71, is also one of its most valued statesmen.

Few can claim his 44 years of uninterrupted work in Italian government. Andreotti himself explains this feat by saying, "In politics it is important not to be a slave to emotionalism." And, indeed his political longevity is in part the result of his famed sang-froid and diplomatic skill.

As a native and lifetime resident of Rome, Andreotti studied law and began his career as a journalist in pre-World War II Italy. His first taste of political life came as a national delegate for the Christian Democratic Party.

He later went on to head Cabinet posts including Minister of Internal Affairs, Finance, the Treasury, Defense, Industry and Foreign Affairs for a succession of administrations dating from 1954 through 1988.

He has been Italy's Prime Minister twice before, once from 1972 to 1973 and again from 1976 to 1979.

As we stand at the doorstep of 1992, the year of EEC integration both literally and symbolically, Andreotti recently commented at a gathering of the press, about whether the changes that take place will mean a more open Europe or an EEC sealed off from the outside world, and the US and Canada specifically.

The EEC clearly recognizes that its fate is integrally linked with that of the US and Canada both in terms of national security and cooperation, since the 1975 Helsinki Accords, he said.

As a result, now is a particularly appropriate time for a Helsinki II in Paris, because today more than ever before there is no more Atlantic divide. The Americans are insolubly bound to the EEC.

As of this past July 1, Italy took over the EEC Presidency for a six-month term. During this time, according to a speech made by Andreotti in the Italian press, Italy's essential tasks in terms of policy goals on an intra-European level were:

- to push for decisive advances in preparing the demolition of internal borders between the 12 member states, which must be completed within 1992.
- to prepare drafts for the two important inter-governmental conferences scheduled to begin a few weeks ago in early December and hopefully, to be concluded in some months. These are, first a Monetary Conference, whose objectives of a single European currency and an EEC Central Bank are still rather far off.

The second is what is being called the Institutional Conference, in which EEC countries will push for a federal pact between the 12 member states.

- to carry out programs that safeguard the environment.
- and to ease the way for German reunification within the EEC and within NATO.

In terms of goals for non-member countries, the EEC has an equally important mandate to carry forward the following:

- to provide impetus to countries wanting to open up EEC Free Trade accords and to not overlook the advancement of Austria toward EEC membership.
- to make way for an open and strong rapport with Eastern Europe, based on financial and technological aid and funding for professional training.
- to widen existing agreements on both sides of the Atlantic, to tighten EEC-North American and Atlantic American relations.
- to improve cooperation with Third World nations, while recognizing the needs and the dignity of Latin America, Africa, etc.
- and to draft a decisive European response against drugs and narco-trafficking worldwide.

One of the most interesting challenges for Italy during its EEC Presidency was the fact that the reunification of the two Germanies took place during that time, said Andreotti in his speech.

The reunification process is the direct result of perestroika and of Moscow's relaxation of strict policy guidelines w its allies. Perestroika should continue w vigor and success. It would also be ve positive for a united Germany to be bo an Atlantic as well as an EEC presen he said.

In terms of Eastern Europe and t USSR, Italy is being viewed as a vital co duit through which business peop around the world can pass to set operations.

Be it through policy planning intense economic-financial cooperati Italy has long assumed a coherent a decisive position. Nevertheless, it must more, Andreotti said.

Italy, a strong prognosis

By Emilio Rossi, Regional Manager of DRI, Milan, Italy

The international economic and po cal environment is going through ra and, to some extent, contradicto changes.

While some signals of recession a materializing, notably in the US, with t Gulf crisis adding concerns of raising in tion, the opening of the East Europe markets, the single European market a the need for a cleaner environment a increasing prospects for new busin opportunities.

The Old Continent is now consider the most interesting area both from economic as well as a political standpo Perestroika and the liberalization of m East European markets are giving way a large number of joint projects—mos in Poland, Hungary and the USSR with West European companies takin the lead.

On the other hand, the "greening" f Europe is likely to bring not only costs b also benefits to European industry, par ularly those in non-energy sectors, a recent DRI study showed.

The Single Market virtually has be attained but monetary union will requ further convergence of economic perf mance and policies. In this framewo European corporations are developin strategic alliances with European a non-European partners, trying to iden their "mission" and core business, diversifying their products and service

After the turmoil of the early 1980s, It is now well positioned to benefit fu from these opportunities.

Inflation has remained stable at ab 5–6%, and lower than the figures were used to. Gross domestic prod

OIL. Wherever it is, we'll find it. Oil is the primary source of energy. It is the power that moves the world and will be so for many years to come.

But, it is necessary to be prepared to wrestle this treasure from the earth's most secret strongholds, using the latest continuously evolving technology, and to venture into hostile, inaccessible places.

Agip, Italy's national oil company, took up this challenge sixty years ago, probing into the origins of the earth, experimenting with new techniques, and devoting to these activities human and economic resources that are always up to the difficulties to be overcome.

Wherever the possibilities of finding oil exist, Agip is present with its spirit of initiative and decades of experience. The results achieved, alone or in cooperation with leading oil companies, in 30 countries, on 5 continents, make Agip a reliable operator in any oil activity.

Even where no-one has ever reached.

Agip

Eni Group

Deep thinking. Top results.

NOTHING IS SO PERFECT

YOU CAN'T IMPROVE IT.

Let's talk for a minute about you. Are you 100% satisfied with yourself? Well, if you are, then it's not likely your future is going to see any big changes.

But if you think that every goal is just a new point of departure, and if you never stop looking ahead - even after you've "made it" - then your mental motor is in top-gear and wide-open when the others are still revving up.

Now imagine something that seems absolutely perfect. The circle.

Do you really think its shape still can't be improved?

Take a closer look.

Don't you see anything wrong?

We don't either. But we try.

Trying to improve on what seems perfect isn't only a good intention. It's a cultural project. A project involving everybody who works in the Fiat Group.

And at the heart of the project are the individual values and professional capacities we consider our most important asset - human resources whose training and development get the Group's maximum attention.

You see, here at Fiat we're convinced that every goal is a point of departure. We have to be. Because when a company is as big as ours, the future depends on its ability to anticipate.

Today Fiat isn't only a landmark in automotive manufacturing.

It's also one of the world's top ranking industrial groups, a forerunner in various areas of production and services. A "circular system" in which each point helps the next one along the line to work in the best possible way. A group of companies deeply committed to planning and producing everything that's needed to make men, things and ideas circulate better.

From motors to creative design.

From technologies to their applications.

Right up to new strategies of prevention dealing with today's environmental problems, based on total recovery and recycling of industrial waste products. And in studies for new urban transport systems, aimed at radically reducing pollution.

You're at the centre of our quality project, too. With your needs, your expectations, your rights.

EUROPE FOR A BETTER LIFE

FIAT

YOU'RE AT THE CENTRE OF OUR PROJECTS.

ITALY 1990

(GDP) increased, on average, more than 3% per year. The public deficit was reduced from 15% to 11% of GDP with the public deficit net interest now close to zero. Real interest rates have been reduced.

A clear sign of health in the Italian economy and of the extent to which it aligned itself with the economies of Northern Europe was given in January this past year, with the adoption by the Lira of the narrow fluctuation limits within the European Monetary System. Add to this the abolition of the few remaining controls on capital flows in mid-May.

In this general economic environment, Italian companies have shown very satisfactory results. Profits rose to their highest levels ever, and in most sectors performance of exports has been outstanding, with Italian style widely recognized.

In particular, Italian companies appear to be ready to exploit the opportunities which are emerging in the East European countries as the large number of agreements signed proves.

Finally, ongoing restructuring of the banking and financial system will be key to improved flexibility, access to credit and investment funding, eliminating one of the structural weaknesses of the Italian economy.

Quality according to FIAT

In another 24 months, the European Single Market will be a reality as it becomes the world's richest market. This globalization will put pressure on the process of selective competition. Already today, these basic changes give a hint of the challenges facing industry in years to come.

The biggest challenge is that of quality, and it is the one involving the largest effort to change. Fiat is aware that its position in the marketplace can be bettered only by maintaining client satisfaction as its final objective.

Today, a market judges products by choosing and comparing them with others. This will be the means by which the market decides which products and their manufacturers are to remain or be packed off, according to the satisfaction they provide. To win over and keep the client has always been the objective of any company selling goods or services in a competitive market. But never before has this aim been as crucial, in a scenario where consumer demand has become so widely differentiated in terms of tastes—changeable in the best of times—and increasingly concerned with quality, performance and value for money.

The average consumer demands a high level of quality, but competitive prices too; a continuous flow of novelties, but quick distribution; high product reliability, but really efficient after sales service. Fiat's strategy in the face of this prospect is called "Total Quality."

Total Quality stands for continuous and simultaneous improvement of all elements that make up the company's activities. Thus, it is not a requisite pertaining to development and production only, for which Fiat has done a lot of work already and achieved appreciable responsibility of all the company's operational structures.

Fiat Total Quality means commitment to creativity and it means collaboration. Each company section carries out its work with the objective of providing maximum satisfaction to the department for which the work is done. These departments should be looked upon, for all intents and purposes, as internal company clients and treated accordingly.

At Fiat, Total Quality means involvement. Each of the company's sections has as its duty and should be given the means, to improve the company and contribute to this improvement with its own ideas and proposals.

Fiat believes that through this policy and with these guidelines it can face the marketplace and beat a different and stronger competition than today's. All this means considerable change in the company's manner of thinking and working, and its behavioral patterns too.

These patterns are taking shape in all cells of the company's structure. At all company levels, there's an ongoing endeavor to achieve the best. This is considered a way of thinking, a culture, since it essentially concerns the behavior of man.

By no means is the concept and awareness of quality's value a new finding at Fiat.

Fiat has always believed in quality though it was once applied in a more technical sense. The company invested 1,000 billion ($870 million) on the problem in the 1987–1989 three year period. Three hundred technicians work in a special "quality assurance" department created in 1974. Fiat was one of the first companies to introduce Quality Part and now, eight years later, they number nearly 5,000 persons. Paolo Marinsek, coordinator of Fiat Auto's "Total Quality Plan" recently illustrated the guidelines of his activities.

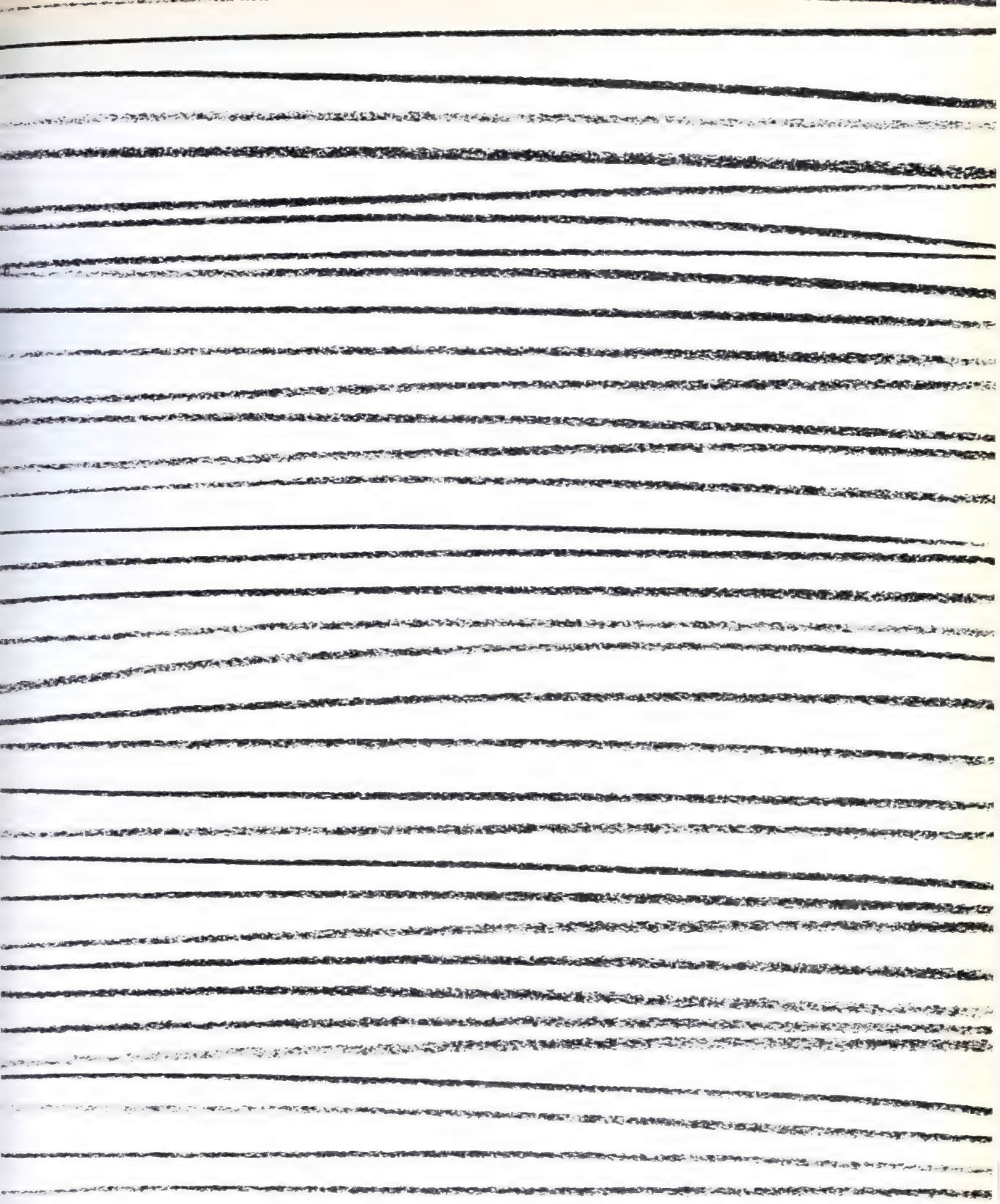
"Today, we are witnessing deep changes in the way quality is understood. We have gone from a technical to a total viewpoint. Clients have become more demanding, they want to feel satisfied and also socially gratified with the products they buy. They no longer settle for the first thing they come upon," explains Marinsek.

Today's client likes to check things out with other owners, to enquire about their experiences, before signing the deal. The customer looks for meanings and symbols beyond the primary function of a mere means of transport.

From this need to satisfy customer requirements is born the Total Quality revolution, he says.

Prevention is the basic system on which Total Quality is founded. No longer is it a matter of checking, at the end of the assembly line, if the car and all its components match specifications. One must go back along the company line as far as possible, preventing trouble, making

***(LEFT)* THE FIAT UNO, A MID-SIZE WONDER AND THIS YEAR'S ITALIAN FAVORITE AND *(RIGHT)* THE THEMA, FIAT'S LUXURY SEDAN PRODUCED WITH A FERRARI ENGINE**



It takes 990,000 km of lines to link 27 million people.

We have now reached 27 million consumers. And we celebrate the event with a record of reliability and efficiency. Here's further proof of the quality of a service that's increasing daily: average waiting time to set up a connection was cut to 7 days in the first half of the nineties compared with 10 days in '88. More than 900,000 km of lines supply energy nationwide, over mountains and under the sea. And Lire 7,300 billion ($ 6.5 billion) was invested last year to make life easier for everyone - including you.

ENEL

ITALY 1990

people work together from designers to technicians, from assembly workers to outside suppliers

Because they are an integral part of the system, special attention is [illegible] pliers They are the company's sensors to the outside, up-stream towards the world of industry and down-stream towards the marketplace, according to Marinsek

To carry out their role efficiently, they must share the same commitment as the company for cont[illegible] unison between suppliers [illegible] must be created to bring a[illegible] ideas and suggestio[illegible] through the company [illegible] suppliers and vice versa This is why suppliers should use the same methods as Fiat, get to know its plans and also take part in its quality training progra[illegible]

[illegible] three level program The first [illegible] the company as a whole Con[illegible] in 1990 on the [illegible] development, its vit[illegible] such elements as the all important "time to market" factor, i e the period spanning idea of a new car and marketing the finished product, he says

On a lower level are the plans concerning internal company operational procedures, and on a third level are the specific programs of various units and plants

There is a common and coherent purpose between these levels which binds them together, the speed and efficiency of processes that run through the company like a great nervous system.

Reactions to client requests—meaning the internal department or colleague to whom work is supplied and not only [illegible] end consumer—must be handled spe[illegible] ily and efficiently to assist in achie[illegible] desired objectives. "For some years n[illegible] Fiat has operated a system," conclu[illegible] Marinsek, "by which anyone can [illegible] complaints concerning quality and t[illegible] follow up how they are dealt with. Th[illegible] are the principal guidelines be[illegible] observed by the company."

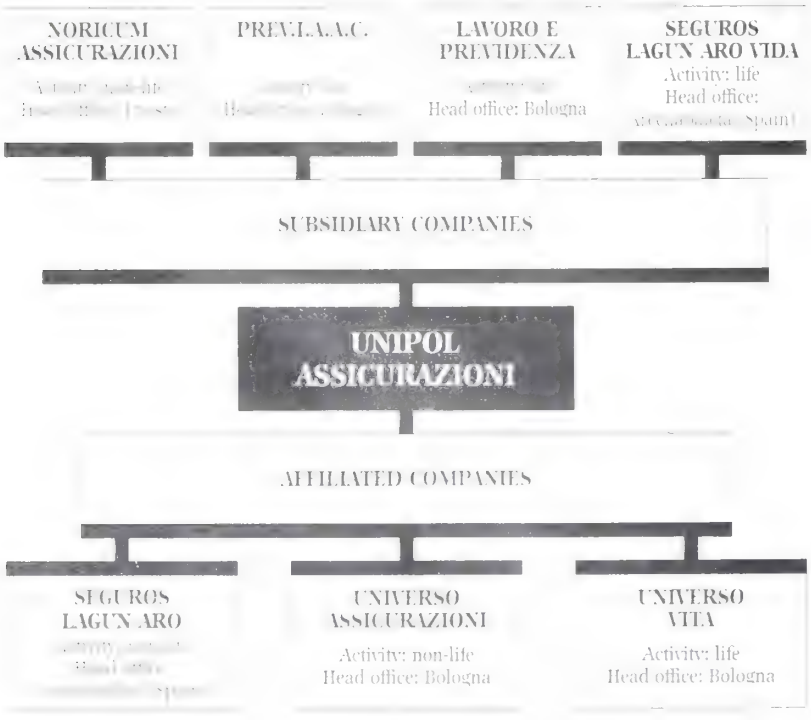
However, a commitment to qua[illegible] from the planning stage to the de[illegible] network, is not enough. Total Qu[illegible] must include entrepreneurial quality [illegible] not only the quality of products [illegible] services

Fiat has also introduced import[illegible] measures concerning training and sa[illegible] policy and vertical and horizontal c[illegible] munications. The relationship betw[illegible] hierarchic grades is now viewed in [illegible] new way and is expressed in a m[illegible] informal manner, which is a gre[illegible] inducement to participation [illegible] discussion

The effort Fiat is making via its T[illegible] Quality Plan is based on these foun[illegible] tions. To achieve it, Fiat has investe[illegible] the intelligence and sense of duty c[illegible] entire staff and in the values that h[illegible] made Fiat big today and will strengthe[illegible] tomorrow

THE ALFA ROMEO 164 TURBO, SOLD IN THE US UNDER A JOINT ACCORD WITH CHRYSLER

UNIPOL: COMPANY STRUCTURE



UNIPOL

Total Assets: 2,355,169
Capital + Free Reserves: 324,554
Gross Premium Income: 1,044,482
Techn. Reserves: 1,729,838

Year 1989 - unconsolidated Lit. (000)

Unipol: Insuring Europe's Cooperatives

By Enea Mazzoli, president Unipol [illegible]

Unipol, the insurance company of [illegible] Cooperatives and Trade Unions in Ita[illegible] ranked sixth in the Italian insura[illegible] marketplace. Since 1963, when it [illegible] founded, Unipol has achieved a rem[illegible] able growth record.

Its key policies are good service, pro[illegible] tion of consumers, and careful p[illegible] control

The relationship with the Coopera[illegible] Movement is central in Unipol's strat[illegible] since regional cooperative structu[illegible] (some of these being now comparab[illegible] size to a small-medium company [illegible] serve as basic distribution channels. A[illegible] gether they account for a prem[illegible] income of around $250 million.

Recently, links with the consu[illegible] cooperatives produced a new ag[illegible] ment, which enhances control of [illegible] whole Group. It also facilitates be[illegible] commercial collaboration and syne[illegible] Present srategies are designed to su[illegible] the "cooperative client" with a co[illegible]

Railway Works Breda of Milan, 1898.
History Records Office, Finanziaria E. Breda

Future has a History.

Vanguard technology. Over a hundred companies.
40 percent of sales are exports.
A presence in five continents.
Six productive sectors of strategic importance:
collective transport systems, aircraft and helicopters,
high technology systems and products, aluminium, glass, plant engineering.
Names of international prestige such as Agusta, Comital,
Breda Costruzioni Ferroviarie, Oto Melara, Reggiane, Siv.
All this has deep roots.
All this has the value of the future.
And an Italian name: EFIM.

EFIM

An Industrial Public Strategic Force

EFIMSEPIN71

ITALY 1990

uum of top quality services ranging from food to property and securities.

Trade Unions also play a central role in Unipol strategy.

As a matter of fact, Unipol and Trade Unions agreed to become partners in founding two new insurance companies: one with Employee's Trade Unions, the other with Trade Unions of Independent Workers.

A few years ago, Unipol started to collaborate on an international level with various leading European companies

UNIPOL CORPORATE HEADQUARTERS BUILDING IN BOLOGNA

with similar social background, to be better prepared for EEC market liberalization and to enhance its performance and service to customers.

Unipol is founding partner in a holding company named EURESA, along with French insurer MACIF, Swedish insurer FOLKSAM and Belgian insurer PREVOYANCE SOCIALE. Based in Brussels, EURESA will coordinate each participant's international initiatives. Unipol currently owns 32% of EURESA.

Among the main tasks of this European venture is a special attention to development of cooperative and mutual undertakings in the insurance field in Mediterranean and in Eastern European countries.

Unipol also holds a participation in two companies started in Spain by the Basque Cooperative Group of Mondragon: they are Seguros Lagun Aro (in which Unipol holds 30%) and Seguros Lagun Aro Vida (Unipol holds 70%).

Last but not least is Unipol's very special relationship with Ingosstrakh, the state insurance company of the USSR. Established well before recent political developments, it is likely to be even closer and more fruitful in the near future.

AGIP, a world to tell about

In this age of communication, the mass media does not always put matters in their proper light. The subject of "oil" is a case in point.

Forced by the need to be topical, it is talked about in negative terms: after environmental disasters, caused by drifting tankers, or sudden price upturns, or energy crises—a latent anxiety of our age that is difficult to exercise.

Nevertheless, our civilization owes a lot to oil. Not only because oil is the main source of energy that moves the world. But because it also supplies raw materials to an increasing number of industries in all kinds of sectors, and moves into our daily life as a basic element of the most commonly used objects. Thus, oil determines international relationships and it tolls our passing days, yet its world is so little known. Indeed, it is an extremely interesting world to reveal to all.

Its world is one of an industry where high technology blends with the undeniable fascination of adventure and creativity. In this singular industry, an Italian company excels on the international scene: Agip.

Because Italian state-owned Agip endeavors to perfect oil technology, it must, like all major operators, quickly adopt all the important novelties that scientific progress makes available to companies in its sector. It does this with the speed demanded by increasingly fierce competition.

But Agip is also something more. Besides keeping pace with scientific progress, Agip has a high degree of technological self-sufficiency, which allows it to play a leading and independent role in innovative exploration and production projects for crude oil and natural gas in Italy.

The Mediterranean peninsula, blessed by nature, has proved to be a perfect testing ground for Agip to experiment and come up with special technical solutions, subsequently used abroad with success. This sizeable contribution to the overall evolution of the oil industry, has made Agip an international company.

Though Agip is clearly a top ranking company, few know about its wide range of activities. A world where technology and creativity merge to bring oil from its millennial slumber, to be transformed into energy vital to progress. The world of Agip is a world to tell about.

Exploring for oil involves numerous scientific fields, each supplying the geologist with but a few of many facts needed to test the reconstruction of soil layers at a depth of thousands of meters. A reconstruction, therefore, still entrusted to intuition and the subjective judgement of experts using highly sophisticated technologies.

In Agip's principal laboratories ra Milan, data from about a hundred w the company drills each year worldw are processed and analyzed. This ur lievable quantity of information, h ever, still may not be sufficient to pro the certainty of striking oil. Certainty be reached only by risking hugely exp sive drilling operations, thousand meters deep. Each well, in fact, costs of millions of dollars on dry land, hundreds of millions at sea.

But even discovery of an oil field, most fascinating and familiar part of obscure work carried out by oil co panies, is not enough to guarantee economical supply of oil and natural The road towards industrial extracti and therefore, recovery of invested c tal still remains long and difficult.

In a sense, the "handing over" of the from geologist to engineer is, for latter, an almost prohibitive challenge fact, finding the most effective explo tion project for the discovered oil fi involves far greater difficulties than th in other industrial sectors.

Above all, bringing the oil field to p duction is an unknown factor. The re voir is located thousands of met underground and can be studied only

THE AGIP TOWER AT PARCO DEL TICINO, IN NORTHERN ITALY

analyzing extracted rock samples, nute fragments, considering that t represent only one millionth of 1 perc of the entire volume of the oil field to appraised.

Only the smallest margin for erro allowed since mistakes can mean he financial losses.

In fact, the considerable econo value of an oil field heightens the imp tance of these variations, even if mod in terms of the percentage of cru extracted. These variations are exclusiv

ked to the choice of extraction system, the number and location wells, the e of offshore platform, the collection tem and most appropriate transporta- n for extracted products given the a's logistic characteristics.
Moreover the final stages of oil opera- ns require the application of merous specializations ranging from science and techniques of construc- , and the technology of materials, to chanical engineering and robotics.
ystems of offshore production, such he ones Agip set up in the North Sea ureen), in the Mediterranean (Bouri), off the coast of West Africa (Loango, para), represent a combination of nologies that are so advanced as to

P'S AGBARA OIL PLATFORM IN ERIA

npete with the space industry. The oil ustry, therefore, has moved from ng a sector industry to being a leading ustry, creating absolutely new tech- ues and scientific applications for use ther fields of production.
oday, there are tangible examples of perimental techniques from Arctic ons and deep offshore areas,
olossal platforms comparable to the st skyscapers in the world,
troduction of new materials,
ew concepts for diagnostic and mon- ng methods,
lecontrol and telemetric systems able of following the activity of off- e sites,
nderwater vehicles,
nd completely automated control ems
his is a world of the future which national operators like Agip are mak- a reality, more quickly than in any r industry.
he widespread image of an oil com- y swimming in profits should, there- be replaced with the much more stic one of Agip, a truly grand center he most advanced accomplishments.

A factory of ideas which adds a bit of the future to our civilization. A world to tell about

ENEL: Energy without borders

In the last few years development and evolution of energy strategy, research and international relations, profound changes in national energy policy such as suspension of use and construction of nuclear power plants, and 1993's united European market, all demand that energy firms be increasingly strong in their strategy and organizational structure

This applies to ENEL, the Italian state electric authority, that is deeply affected by political choices about energy use. In this context, forecasting the future, programming working choices and hedging against negative market turns are all of extreme importance.

However, the ability to initiate technological change and the content of those changes are valued and judged outside national borders too

Indeed, despite the freedom of various electrical entities to compete for business outside Italy, ENEL has acquired grand dimensions. That is, it has collaboration agreements with numerous countries.

ENEL enlists the aid and technical consulting know-how of hundreds of its employees who are accomplished professionals specializing in research, plant construction, production, transportation and distribution of electrical energy, in forming and fulfilling these agreements

Already, ENEL is present on five continents with over 60 cooperation agreements in about 50 countries In particular, more than 300 contracts and specific arrangements to do consulting and/or to give assistance to foreign electrical authorities have been completed by Italian electric companies abroad

Requests to ENEL by the Italian government on the part of developing countries and requests from the United Nations for realization of UN projects, are testimony to ENEL's ability and dependability. Professionalism and know-how, including use of the most advanced technology, are ENEL's calling card as well as its instrument for promoting the "Italian system" to the world

At yearend 1989, ENEL had 343 contracts for consulting abroad

Among these was a contract in North America to do consulting on an important geothermic project, for the State of Hawaii Department of Economic Development. ENEL will provide a feasibility study and evaluate the environmental impact and financial aspects of the work

In Latin America, ENEL has set up a number of electrical companies including ones in Argentina, Mexico and the Dominican Republic. Another electric company in Venezuela, named Cadafe, was built by ENEL to bolster the country's central thermoelectrical plant

In East Africa, ENEL is putting the finishing touches on an Ethiopian central hydroelectric power plant on the Sor River and two transmission lines. In Somalia, ENEL has concluded a contract to give assistance to the central power authority at Gesira and recently was hired by the Ministry of Foreign Affairs to begin assembly of two diesel-powered electrical units

In North Africa, ENEL is working to improve the operation of a thermo-electric station in Morocco In Tunisia, it has begun, along with other Italian companies negotiations for construction of a 1,300 MW power center, whose production (once installed) may be acquired and re-sold on the marketplace by ENEL

In Asia, ENEL is carrying out a feasibility study for a hydroelectric plant on the Yangtze River in China. Further, in Southeast Asia, ENEL has a project in the Philippines

In Europe, ENEL is also in negotiation for the eventual purchase of electrical power from the USSR and the expansion of electricity systems in Austria, Yugoslavia and Hungary

Regarding the integration of the European electricity sector in general, an EEC commission has issued rules which increase exchange and competition between companies, even though some of this competition might only be partially acted upon

To explore and analyze inherent problems in European unity when it comes to electricity, ENEL launched an intensive study project in 1989 that should result in proposals for unity, change and projects regarding the electrical sector in Europe For this study, ENEL officials participated in numerous EEC meetings both directly and via membership in Unipede (an association of EEC electrical firms and authorities)

Further, ENEL has been appointed to the presidency of a Unipede working group known as Eurotrade, which produced a study commissioned by the EEC commission on electricity, on the international business of electrical energy entitled "Prices and Principles of Fixing Prices in the International Exchange of Electricity".

ITALY 1990

Fiera di Milano, Italy's showplace

For almost 70 years, the Fiera di Milano has survived and prospered in carrying out its two main objectives. They are to act as a mirror, reflecting the entrepreneurial culture and vigorous, Northern Italian work ethic which surrounds it and to provide Milan with all the structures necessary in order to show itself off as a first-class European city.

Today, Milan's traditional fairgrounds feature 380,000 square meters of surface area, streets and piazzas which extend for 75,000 square meters, 33 pavilions plus five service buildings. One example is "Pavilion 16," with an area of 10,000 square meters, adapted to house heavy machinery exhibits, with a height of 12 meters.

The highest pavilion is "Meccanica 7" with four floors and a roof top restaurant with hanging gardens.

Also, the traditional fairgrounds feature 27 conference or seminar halls, 10 restaurants and 12 cafes.

The most noteworthy of these is the glass-fronted CISI (International Business and Meeting Center), at the heart of the fairgrounds. The Center houses exhibit spaces and four conference centers, each with a roughly 3,000 person capacity.

Besides these, there are smaller congress or seminar halls specially equipped for functions seating from 15 to 700 people. These rooms offer users simultaneous translation, recording and projection facilities and make other services available such as a secretarial pool, a press room, domestic and international telecommunications systems, private meeting rooms and refreshment facilities.

In order to evolve into a true forum for international exchange of ideas and information, the Fiera under the guidance of Enzo Vicari, its president, consistently refused to simply make due on what it earns. Instead, it keeps pushing toward its objective of transforming the "old trade-fair" concept into a new reality which only the structures and resources of a city such as Milano can support.

Out of a desire to create this new reality, the Europa plan was born. Its maximum expression is the annual, five-day "International Week," the most important

THE CISI (CENTRO INTERNATIONALI SCAMBI E INCONTRI) CENTER FOR INTERNATIONAL MEETINGS AND EXCHANGE

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FIERA MILANO

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Tel. 2/49971 - Tx. 331360/332221 EAFM I - Fax 2/4997375

thering of production forces in Europe
d among the largest in the world.
Along with this, the specialized exhibi-
ns are enhanced by business confer-
ces and large international image and
motional campaigns.
nternational Week is attended by visi-
s from the US, the USSR, the EEC,
mecon, China, India, and South
erica.
n addition to this, the Fiera di Milano
h its 300-day per year exhibition cycle,
ne of the most important reference
nts for businessmen and entrepre-
urs worldwide. Each year, the tradi-
nal fairgrounds and auxiliary exhibition
ces at Padiglione Sud (South Pavilion),
ich is 17 kilometers from Milan's city
ter in the small town of Lacchiarella,
sts more than 80 exhibits embracing all
tors of international business and
duction.
Among them are well-known shows
h as:
car, the international exhibition for fur-
ning textiles,
hibar and cart, the international sta-
ery show,
Macef, with editions in Spring and
umn, the international household
cles, goldsmithery, watches and
erware show,
ques, the international horse show,
iflor, the annual flower and shrubbery
w,
lifed, an annual international, multi-
dia market for cinema and television,

**OWD OF INTERNATIONAL VISI-
S FLOCKING TO ONE OF THE
A DI MILANO'S MANY SECTIONS**

d each Spring and Autumn the exhi-
n for the international fashion world
e year's largest designer collections.
ther, the Great April and specialized
in 1989, hosted 43,265 exhibitors,
16 of which were Italian companies
11,249 of which were non-Italian.
e events brought a total of
9,000 visitors, 2,891,000 of whom
Italian and 398,054 of whom came
abroad.

SMAU: At the cutting edge of office innovation

By Enore Deotto, President, SMAU

Results of the 27th edition of Salone Internazionale per l'Ufficio (SMAU), held in Milan this past October, show it to be the primary reference point in Europe for information technology and office products.

***(FROM LEFT)* MAYOR OF MILAN, PAOLO PILLITTERI, MAYOR OF MOSCOW GAVRIL POPOV, SMAU PRESIDENT ENORE DEOTTO**

A trade show's bill of health can be measured by three criteria: the number of exhibitors, the flow and quality of visitors, and the success of events staged during its opening.

In reviewing these factors, Smau '90 was a very positive event. Exhibitors numbered 961 (compared with 886 in 1989); they represented 2,148 firms (over half from 28 different countries); and introduced 800 novelties.

The flow of visitors was important 180,000 (20,000 more than last year) of whom over 60% were managers and trade dealers. Crowds of about 45,000 viewed the historical exhibition staged by Smau and SIP (with the partcipation also of Alcatel Face, Fatme-Ericsson, Italtel, Siemens Telecommunications, Sirti, Teletra, Anie and the Milan Fair).

The "Voice in Space" exhibit, was dedicated to development of radio-telecommunications: an important show, inaugurated by Maria Cristina Marconi, widow of the celebrated scientist.

What's more, 6,000 persons attended the 15 international and specialist conventions held during the course of Smau '90, with the collaboration of 170 lecturers.

One of the main points of interest in Smau '90 was the opening up of East European markets. To stress this, Smau witnessed the attendance of the Mayor of Moscow, Gavril Popov, and heads of the scientific Ministries of the USSR, Poland and Czechoslovakia

SMAU FOR KNOW HOW

Smau stands for Italy's office equipment show. It is a point of reference, in Europe and worldwide, for this market. Smau means information technology (both hardware and software), telecommunications, data communications, office automation, side-shows and conferences. And, of course, the Smau Industrial Design Award.
For further information call us:
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784407 (Telefax)

**Smau '91: October 3-7
Milan Fair - Italy**

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Staff
TOUR BLADE
Staff
TOUR BLADE

WOULD YOU ASK AN AMATEUR WHICH ONE TO CHOOSE?

Today, since the financial market has the world as its playing field, it's important to know how to play the game with the best tools available. The bank which has been taking a lead in these trends is BCI, the Italian bank with the most international outlook and vocation. An ideal partner, the bank can supply highly specialized assistance to the business decision process. In New York, for example, the heart of finance, we have specialized personnel, both Italian and American, and we can offer an optimum integration of contacts in the two different markets. This gives our clients many advantages in their domestic and international activities. And naturally, we can offer all the most advanced and personalized options such as short and medium term loans, syndicated and non-syndicated, financing for acquisitions and mergers, trade financing, currency and interest rate swaps, options and other innovative products. If you're a player in the international game, we can offer you the winning mix of financial technology and individual creative solutions.

BANCA COMMERCIALE ITALIANA

ITALIAN LEADING BANK

ITALY 1990

An Interview With Ottavio Salamone, General Manager, Banco di Sicilia

Q: What is your estimate for Bank performance in 1990 compared with 1989?

A: In the first six months of 1990, gross profit totalled Lit. 156 billion ($135 million) or a 9% increase over the same period a year earlier. Deposits totalled Lit. 24,000 billion for first-half 1990 or an increase of 8.2% over first-half 1989.

Loans during the first half of this year appreciated to Lit. 17,000 billion or by 8.6% compared with the same period last year.

Q: How far along is the Bank's project to strengthen technology and information systems?

A: In order to keep abreast with the current marketplace, we have launched a modernization project which will restructure our organization. We have made a large investment in strengthening a central databank. Once completed, we will have a comprehensive client archive.

To make this accessible on a branch level, it will be necessary to create an entirely new technological base, requiring revisions to central hardware, telecommunications lines, software bases and computers installed in branches.

Q: How is the Bank modernizing its organizational structure?

A: The Bank is moving to streamline its central administration and to give its regional districts more power. This should reduce administrative work and direction, and allow more time and resources to be dedicated to realization of strategic projects. Such a structure assumes that quality is a pervasive factor in business. It will allow the Bank to specialize in various segments and for various types of clients.

Q: What is the Bank doing to increase capitalization to keep up with other EEC competitor banks?

A: Recent banking reform legislation will allow the Bank to develop vis-a-vis the competition. As a result of the new rules, the state will allocate Lit. 600 billion towards recapitalization, which will allow the Bank to reach newly imposed net-worth limits.

To fully benefit from these new changes, we appointed a group within the Bank to dedicate systematic attention to applying the new reforms to our own banking environment, even with the contribution of outside consultants.

Q: What is the timeframe for these changes?

A: Before August 21, 1992, credit institutions will have to change in order to count on the benefits provided for by the law. Our Bank, however, will have defined the essential elements of the process already before the first half of 1991.

Q: What will the Bank be like in the 1990s?

A: The Bank is on a road leading to structural transformation, to prepare for future planned changes already underway. These changes will make way for the development which the Bank deserves, in light of a single European market.

The Bank is not a regional entity, but one for which the entire market is critical. The Bank cannot hide behind the Sicilian market, though it must continue to care for it attentively. The national network must become more homogenous.

We must invest in the financial services area, not to become an investment bank, but in order to meet the requirements of those savers who want to become investors. They will want advice that we will be able to give if we don't make qualified investments in certain areas where we need more presence.

Q: Where will the Bank be in terms of international development in the 1990s?

A: In my opinion, the Bank must supplement its presence in centers like Paris, Frankfurt, London, Lyons and Monaco, with the stipulation of preferential agreements with foreign banks because it would be a waste, as well as a big risk in investments and management for each European bank to duplicate services.

The solution could be to create "franchising" or exchanges, perhaps even in terms of shares. In that way, each bank would serve as a back-up for others in its own country.

For the Bank, it is a matter of strengthening its historical traits of dynamism and entrepreneurial ability in a world characterized by growing needs for efficiency, professionalism, "glasnost", and quality service. Our Bank already has these virtues and it is our duty to make them emerge and for them to assert themselves on the marketplace.

BANCO DI SICILIA HEADQUARTERS BUILDING IN THE HEART OF PALERMO, SICILY

We have wide horizons.

Banco di Sicilia is heir to a banking tradition which goes back to 1459 and has developed into a diversified group offering a comprehensive range of banking and financial services.

The Bank has a domestic network of over 350 branches and a foreign network comprising seven branches (Frankfurt, London, Los Angeles, Lyon, Munich, New York, Paris) a wholly owned subsidiary (Banco di Sicilia International S.A., Luxembourg) and representative offices in Brussels, Budapest, Chicago, Singapore.

Additionally Banco di Sicilia has a diversified group of subsidiaries and affiliates among which the following are specifically active in international operations: Basinvest S.p.A.-Milan, Estero Imprese s.r.l.-Milan, Euramerica Finanziaria Internazionale S.p.A.-Rome, Centro Internationale Handelsbank AG-Wien, Bank of Valletta-Malta.

BdS

BANCO di SICILIA

Member of The Securities Association - London Branch - 99 Bishopsgate, London EC2P 2LA

Prospects for venture capital in Italy

By Stefano Trentino, consultant KPMG Peat Marwick, Italy

Creation of a single European market and the increasing possibility of business activity in all EEC countries, on the one hand, is a source of hope for Italian entrepreneurs and on the other, presents problems with growing competition.

Currently, Italy is made up of mostly small- and medium-sized companies, an ideal mix to practice venture capital operations.

The Italian market has, in fact, notable potential. Elements which weaken Italian venture capital from developing fully, include a lack of fiscal incentives for investment in risk capital, and lack of approval of a law allowing for closed end funds.

In addition, it is still difficult for the venture capitalist to disinvest. This is because the Italian stock market isn't yet truly evolved.

Besides the venture capital market, various types of operations including Italian early stage financing, expansion financing, L/MBO financing, and turnaround financing, have grown notably over the past few years (51% in 1989).

State financing contributed to the rise of many new enterprises, particularly in Southern Italy (due to Law no. 44). However, in the near future these companies will not be able to count on state subsidies.

In this manner, a whole area of new entrepreneurship will be opened up which will become prospects for venture capitalists.

INVESTMENT IN ITALY*

Distribution of investments in a year

	1988				1989			
	Amount of Investment	*%*	*Number of Investments*	*%*	*Amount of Investment*	*%*	*Number of Investments*	*%*
Seed	0	0 0	0	0 0	14,023,077	3 6	5	2 6
Start-up	2,824,405	1 1	18	13 8	12,057,912	3,1	55	26 3
Expansion	106,132,253	40 8	70	53 9	252,599,832	64 3	77	36,9
Replacement Capital	100,780,065	38 8	22	16 9	83,827,377	21 3	33	15 8
Buy-out	50,270,659	19 3	20	15 4	30,137,938	7 7	38	18 4
Total new investments	260,007,382	100 0	130	100 0	392,646,136	100 0	208	100 0

*in IL x 1,000

Source: Venture Capital in Europe, EVCA/KPMG

ORAO news: Saving precious time

Amidst the confusing array of information available daily in today's world, it's no longer enough to scan the local press for one's subscribers.

Orao News, for instance, operating in Italy for the past three years, has become the leading press review service for both domestic and foreign news.

Its service is available in print or in computer form. Using a modem and computer "Telpress" software, one can link a personal computer to the agency and access its myriad offerings.

Aeritalia: An important victory for the G222 aircraft

The Aeritalia G222 twin turboprop has been selected by the United States Air Force (USAF) under the C-27A program as the new short take-off and landing medium-transport aircraft. The contract is worth about $80 million in fiscal year 1991.

To participate in the USAF competition, a joint venture was formed in 1988 between Chrysler Technologies Airborne Systems Inc. (CTAS) and Aeritalia-Societa Aerospaziale Italiana (of the IRI-Finmeccanica Group).

Aeritalia will deliver to CTAS the basic G222 and required spare parts, and also will train the first USAF and CTAS crew and maintenance personnel.

CTAS will be responsible for development, installation and integration of the avionics suite needed to bring the G2 up to C-27A specifications.

Early this past June, the G222 formed operational demonstrations Wright-Patterson AFB (Ohio). USAF p and technical teams evaluated the airc in flight and on the ground in a challe ing scenario, to verify both quantitati

THE REAR RAMP OF AERITALIA'S TURBOPROP G222, LOADING VEHICLES AS CARGO

and qualitatively the G222's perf mance, safety and ability to carry out role foreseen by the C-27A requiremen The G222 met all specifications and many cases, exceeded them.

The USAF's choice confirms the valid of the specifications originally written by the Italian Air Force for a transp aircraft capable of operating in par ularly difficult conditions.

Voicing the company's satisfacti over the award of such a prestigious co tract, Fausto Cereti, Aeritalia's vice pre dent and chief executive offic underlined the many market opp tunities now open for the G222 and wide potential for use in civil protect and transport in general, particularly geographical areas requiring the G22 unique capabilities.

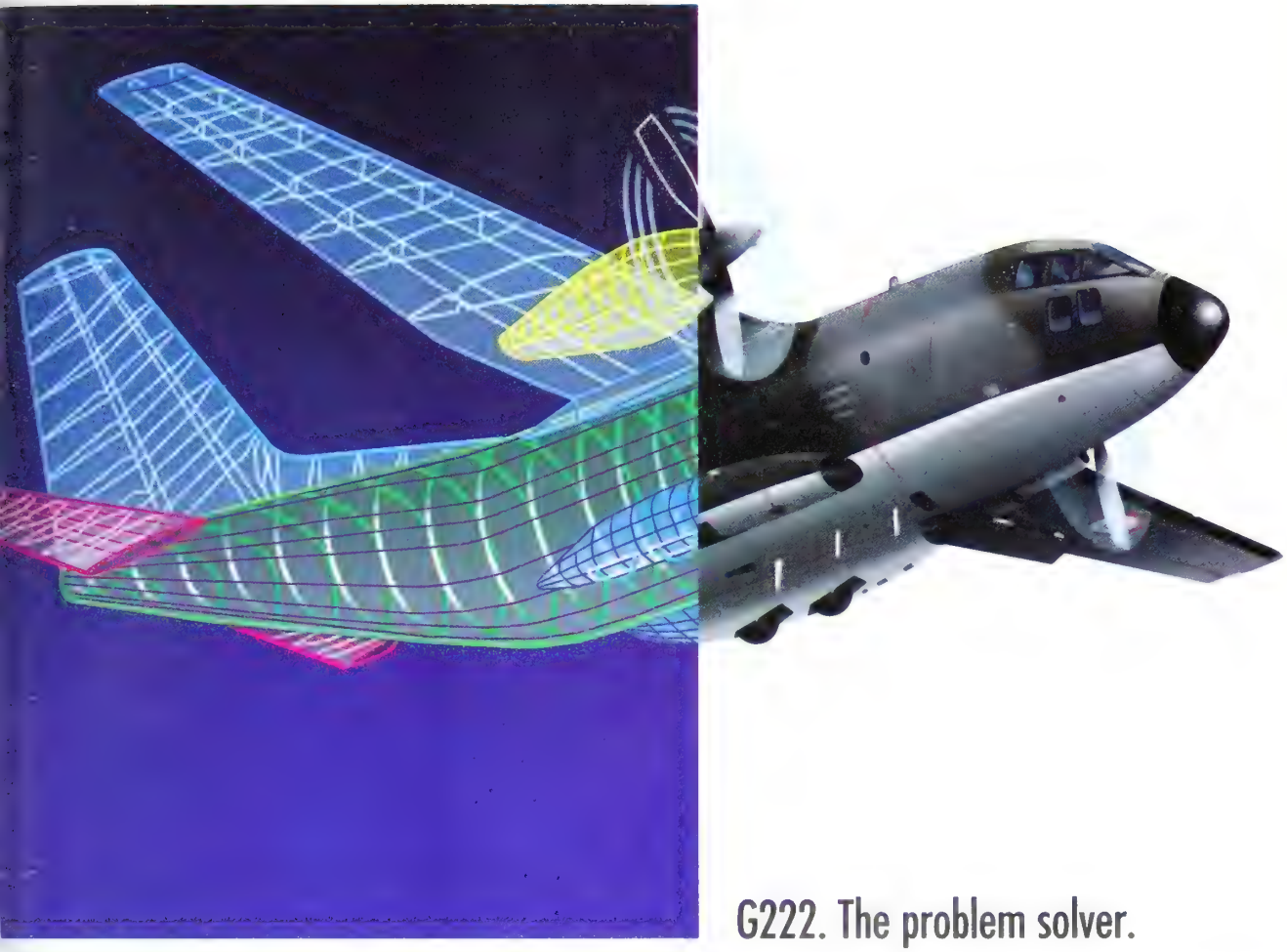
The aircraft was designed to meet It ian Air Force requirements for a mediu transport aircraft. A contract for develo ment and flight testing of two prototyp was awarded in 1966.

In 1967, the configuration was froz and a model specification was issued.

The aircraft had to provide the high flexibility to meet the needs of the Itali operational scenario with its short, se prepared landing strips and high, exte sive mountain ranges. Moreover the craft had to operate in the demandi Italian weather.

The first flight of the first prototy occurred in July 1970, while the seco prototype made its first flight one ye

E R I T A L I A.



G222. The problem solver.

ved as a military transport aircraft, the G222 has proven a superb multirole capability. Built by Aeritalia's ort Aircraft Group, the G222 features a modular internal design which allows it to handle the sharp end of uation. Its roles include patrol, rescue, firefighting, supply airlift, medical evacuation, photography and nspection. Such flexibility is made possible by the G222's strength. It is easy to fly, easy to service and in- easy to turn around. It can carry a 9000 kg payload using short, rough strips even tracks. It can deliver t minimum heights over hostile terrain. Advanced systems allow the G222 to operate in bad weather and ndent of ground assistance. Low maintenance costs and excellent fuel economy he G222 the most cost effective aircraft in ist class. For these reasons, the G222 e skies of seven nations. And as your requirements evolve, so does the G222.

GRUPPO IRI FINMECCANICA
AERITALIA
società aerospaziale italiana

Y N A M I C S Y S T E M.

ITALY 1990

A PARACHUTIST JUMPING FROM AN AERITALIA G222 TURBOPROP AIRCRAFT

later. The result of flight testing the two prototypes confirmed the excellent operational and flight characteristics of the aircraft and contributed to the final assessment of the military specifications, issued in 1973

In December, 1975, the first G222 production model took off and began the flight test program, which was satisfactorily completed in first-half 1978. The current G222 is the final result of all these studies. It not only satisfies basic requirements, but is endowed with a high-operational growth potential. (A different configuration, powered by two R.R.Tyne MK 801 turboprop engines was developed for a foreign customer and the prototype flew for the first time in May, 1980).

In order to achieve the best cost effectiveness, special attention was paid to the following features

- the cargo compartment was designed at maximum width, to accommodate large loads. The rear door and loading ramp ease cargo handling and air-dropping of heavy loads
- the landing gear features the most suitable design to operate on semi-prepared strips. Furthermore, the height of the cabin floor can be adjusted
- an auxiliary power unit ensures independence from external power sources
- the pressurization system permits the plane to fly at high altitude with lower fuel consumption
- avionics based on a self-contained navigation system and radio assisted equipment, allow operation in severe weather conditions and in all operational theatres
- systems feature either duplicated or triplicated circuits and are based on the most up-to-date equipment.
- the advanced and ergonomic philosophy built into the cockpit design and its controls and systems, allow the G222 to be operated by a two-person crew.
- the G222 has multi-role capability such as transport, air dropping, fire fighting, antipollution maritime patrol, aerial tography calibration as a navigat aid, and Vip transport.

Production of G222 is budgeted fo to 150 aircraft. It is being built in Aerit Naples plants, in collaboration with companies belonging to the Italian C Consortium.

Integrated into the military air trans systems, the G222 efficiently carries at lower cost, those missions for w strategic transport aircraft would p oversized.

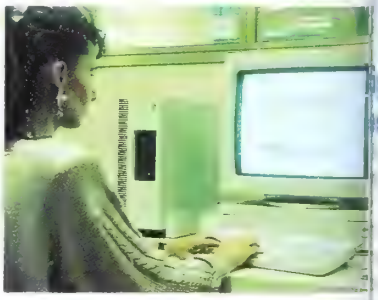
Intecs Sistemi: Software for European space programs

There is already an established indu where full cooperation takes place tween European companies—in ware development for European Sp Programs.

In every such Program, the dem and the volume of software to be d oped is growing, and its quality mus of the highest order. Therefore, usability becomes, more and mor strict necessity.

This situation and the sheer numb European companies involved, le establishment of the European Sp Software Development Environm (ESSDE), for which Intecs Sistemi S.p the prime contractor.

Supplying the "Adanice" software



AN INTECS SISTEMI ENGINEER WORKING ON ADANICE SOFTWA FOR THE HERMES SPACE SHUT

gram for the Hermes European Shu and significant contributions to the lumbus Space Station Program, among Intecs Sistemi activities.

Intecs Sistemi was selected by the E pean Space Agency (ESA) to study onboard, operating system ca "Obose", intended as the European s dard for a generation of autom

in tecs

Is an Italian based company with branches in Rome Pisa Naples Bruxelles operating in advanced Software Technologies in the following fields:

- Communication Software
- Artificial Intelligence
- Real Time e Embedded Systems
- Software Engineering
- Operating Systems and Architecture
- Training for Advanced Software Tools
- Test and Control Systems
- Technical Information Systems
- C&C Systems
- Multimedia Software Technologies
- Electronic technical documentation

Intecs Sistemi activities are mainly in Aero Space/Industrial markets on European basis applying high tech services and products to organisations such as ESA,CNES,ASI,NATO,CEE and to industrial european customers such as AERITALIA, DORNIER, MATRA, MBB, SELENIA

In the last three years the company has experienced 40% increase annually.

The extimated 1990 figures are:
Turnover: 20 billions liras (approx.)
Personnel:180 professionals

in tecs

Managing Director: Ing. Stefano Ciarrocca
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FIAR

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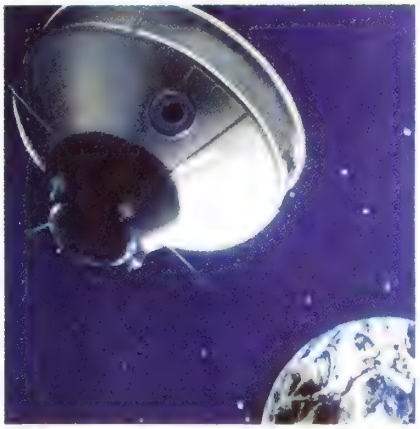
ites.
her activities include responsibility
he design of COLOS (Columbus
rating Systems), and research on
nced operating systems for telecom-
ications in the EEC's RACE Project
ecs Sistemi also is participating in
branches of computer science, such
ultimedia products.

ghway to chnology

ilvano Casini, president and general ager, FIAR S.p.A. - Milan

the troubled state of Europe, due to elease of repressed energies around ern Europe, FIAR, a recognized dwide company active for nearly 50 s in the aerospace market, stands y with its people and its resources, to part also in development of the er half of the old continent."
fact FIAR with its subsidiaries and rolled companies, has sophisticated v-how at their disposal,for applica- not only in the traditional aerospace et (radar, sonar, electro-optics, satel- evices and systems), but also in new nents such as information-technol- security systems and environmental



A LIGHT SATELLITE USED IN A FIAR RESEARCH PROJECT

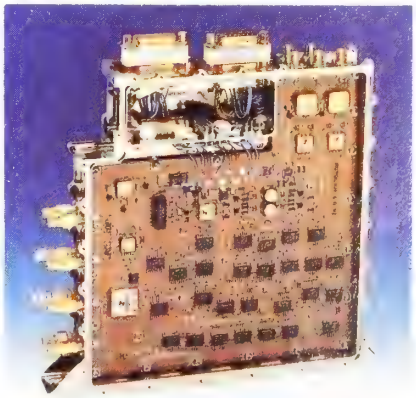
and agro-meteorological control

Over 60% of FIAR's staff are university graduates and persons with advanced degrees which makes very important R&D activities possible. In 1989 over $35 million was spent in this sector, equal to 26% of sales

All this has helped FIAR reach the highest degree of aerospace excellence in Europe and the rest of the world

Contraves and the race for high tech in space

Contraves Italiana S.p.A., of the Oerlikon Contraves Group, is a leader in development and manufacture of complex Short Range Air Defense Systems (SHORAD). It has extensive experience in the design and production of radar sensors and relevant components



INTERNAL VIEW OF A CONTRAVES ITALIANA PROCESSING UNIT TO BE USED IN X-BAND SYNTHETIC APERTURE RADAR TECHNOLOGY

A few years ago, the company sought to widen its scope by acquiring contracts from SDIO and transferring know-how to civil applications, in particular in civil defense and space programs.

To achieve this, Contraves Italiana concentrated on development of high-precision mechanical systems and microwave electronic components. Examples of recent work include:

- development of components for X-band Synthetic Aperture Radar as a subcontractor of Selenia Spazio-Italy S.p.A., in a joint program with NASA, ASI and DARA
- development of antenna deployment mechanisms adopted by Hughes for the British Broadcasting Satellite.

STET: A plan for the future of Italian telecoms

Respectable though it may be in absolute terms, Italy's telecommunications infrastructure is not yet appropriate for an advanced economy

contraves

Contraves Italiana S.p.A., is a leading company in the design, development and production of electronics, radar systems and relevant components in the field of civil and space applications.
In the civil applications field, the company is involved in:

- EMC laboratories;
- Environment monitoring sensors;
- Systems for monitoring seismic events (CODISMA);
- Millimeter wave systems.

In the field of space applications, Contraves Italiana is involved in:

- Development, production and qualification of discrete/integrated IF and microwave circuits;
- Development, production and qualification of deployment mechanisms for antennas and solar arrays;
- Millimeter wave payloads.

Contraves Italiana S.p.A.
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00131 Rome - Italy
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Telex 610166 CONITA I
Fax +39 6 4130830

ITALY 1990

Economic strength admittedly came late, but the present state of the country's telecoms system can also be traced to specific factors from the late 1970s: inflation, social unrest and, worst of all, lack of proper tariffs policy. At a time of fast growth in technology and services, the crucial investment needed to expand the network was denied. Other major European countries invested heavily. In 1976-1980 Italy's investment was only 50% of the French, 80% of the German, and about equal to that of Britain which was already the European leader in telephone density. In the mid-1970s Italy

A CSELT (STET GROUP) SIMULATOR FOR AN "INTELLIGENT NETWORK" TO TEST NEW SERVICES

boasted greater phone density than the French and was nearing the Germans

The 1980s saw a clear improvement as the economy gradually recovered. Domestic operator SIP balanced budgets between 1980 and 1986, while keeping tariff increases below inflation levels. A new investment program was launched to halt further drift away from other main European economies.

But by the end of the 1980s, Italy's telephone density (37%) was still well below that of West Germany (48%), France (48%), and the UK (44%). The drift may have been stopped, but Italy had not caught up with its backlog

The gap was worse in advanced services, whose network demands called for heavy, on-going infrastucture investment. Packet switching is at a third of the French or German levels. Though now a growth area, cellular phones were slow to start in Italy especially compared to the UK

STET aims to bring Italy up-to-date with its main European partners—in infrastructure, basic services, and the newer value-added services

Increased investment must take certain facts into account however. First, as a system, modern telecommunications calls for investments in plant and installation, coordinated over the long term. Any stop-and-go policy will not only seriously damage operating efficiency but also will affect return on capital.

Secondly, large-scale investment requires a contribution from profits.

Financing generated in-house covers the investment needs of Europe's main operators. Other methods, such as heavier borrowing, seriously handicap financial management and are unacceptable in the long run.

The end of the 1980s brought improved trends in demand, the lowering of unit costs for investment goods, and increased self-financing by STET's subsidiary companies, particularly SIP

The program for 1988-1992 already foresaw investment of about Lit. 27,000 billion ($23.8 billion), with 850,000 new subscriber connections per year to take Italy's telephone density to about 40%.

Strategic re-thinking brought about the "Piano Europa" (Europe Plan), which envisaged Lit. 9,200 billion of extra investment (a total of more than Lit. 32,000 billion over the five-year period).

Granted slight tariff increases in the first years of the program, SIP reckoned to generate financing from its own resources

The speed-up of investment—which incidentally boosted manufacturing activity in the sector—aimed to increase numbers, but also had the twin goals of improving quality and spreading the newer, value-added services more widely. The plan to catch up with Europe included telephone density of 43% by 1992 (similar to the UK target for a year); the reduction of new connec times to a few weeks; faster fault rep and, a fully operational high-capa data network. In the areas of fastest de opment the extraordinary investm program included start-up of the Mhz analog cellular system, installatio wide band networks in the main me politan areas, and marketing build-up a wide spread of information technol services

"Piano Europa" conditioned all ST subsequent planning. The speed-up investment, in any case, fits the strate need for a multi-function network. C capable of assuring the effective and c illary spread of basic services at tod performance levels while at the sa time providing the infrastructure multi-provider value-added services.

STET's four-year plan 1991-1994, wo Lit. 43,000 billion at current pric focuses on two goals. One is impro quality, network growth and extensio services for the most advanced facil available, so that business can comp

ITALCABLE (STET GROUP) CENTER FOR INTERCONTINENTAL TELECOMMUNICATIONS

effectively within the single Europe market

The program envisages an average more than a million new subscriber year, to reach a density of 46% in 199 also foresees a build-up of switched n work business-user services including:

- speeded up digitalization of the n work (completion date 2000),
- a pilot ISDN service in 1991,
- launch of a Europe-wide 900 Mhz d tal cellular system in 1992 with build-up mobile subscribers to approximately million.

A falling tree resounds.

ITALY 1990

• achieving quality standards in line with general European performance (new connection times, repair times, etc.).

The economic and financial conditions for such a program must be clear, and in particular self-financing must account for an average of some 80% of investment over the period, and must reach 100% by the end of the plan

Technological advances such as low-orbiting satellites and cellular telephony, changes in standards such as the re-defining of state monopolies and consequent opening of important market segments, institutional change such as the separation of regulatory and management functions and the emergence of new operators—all these will transform the telecoms market in Europe (and hence in Italy too)

STET and its subsidiaries are ready to take up the challenge of greater competitiveness in the TLC services market. Important political decisions will have to be made. At the EEC level, great changes are on their way which will alter long established positions. Italy still awaits Parliament's deliberations on a government proposal to align the country's telecoms system with the principal European states and the EEC's Green Book.

In its role at the front line of telecoms development, the STET Group has informed the appropriate government bodies of the policies it proposes to follow. The programs involved call for a heavy commitment of resources, and in drawing them up the Group has made specific reference to the letter and spirit of its relationship with the government from which it holds its concession.

This forms part of its overview of the sector and its prospects for growth from both a quantitative and qualitative point of view, the Group has identified particular growth sectors, especially in those services which are developing fastest and most profitably. To alter the mix of Group activities, in the face of its own, better judgement would entail a modification of the programs as described

SIP and the new European dimension

By Paolo Benzoni, vice president and CEO of SIP (Italian State Controlled Telecommunications Service)

SIP's strategy, activity and plans focus on the new European dimension of telecommunications for 1993.

This is a key sector for integration while being one of the most difficult in terms of existing differentiation between institutional assets, technology and regulations.

Facing the European market means satisfying the needs of ever more demanding consumers, but above all else making the national network efficient and more transparent. This can be done

TWO SIP (STET GROUP) TELECOMMUNICATIONS RECEIVER TOWERS

by harmonizing standards, to offer uniform access conditions in line with the EEC's Open Network Provisions.

For SIP, this means reaching goals defined in its ambitious four-year plan which extends from 1991 to 1994

The objective of this investment plan is to speed up development, which has made SIP give more attention to market demands and to aim marketing policies at user needs.

In 1994, at the end of a Lit. 43,000 billion ($37 billion) investment cycle—for which further growth is anticipated due to strong market dynamics, in particular involving development of the radiomobile network—Italy will have a systems network and general level of services in line with those of leading international economies

Rapid evolution in demand for both base-telephone and new service such as videotel and radiomobile has taken hold Videotel subscriptions (which multiplied five times in the past two years) today total 130,000. Radiomobile (which multiplied six times in the past two years) total 200,000 subscriptions. Both areas grew thanks to SIP's price reduction polic terminals.

To sustain such a rapid trend, launched a concerted investment e during the 1980s, to achieve quality efficiency.

Although many things aren't c pleted, these initiatives confirm a ma open to services that go beyond t telephones and with a trend tow accentuated development.

In this environment, it is necessar have clear and precise rules which a private service providers to enter market.

Telespazio: Applying space technology to remote sensing

Space technology and satellite ser aren't only of use in telecommunicat or telematics. They are also usec remote sensing from orbit altitude supply data about the earth's surface atmosphere to make important f available for forecasting, protection o environment, and management of n ral resources.

Satellite remote sensing supp extremely significant data thanks to p odical timing and comprehensive sur lance views.

This is where Telespazio, of the IRI/S Group, adds to the satellite observa technique. Via the analysis of pict taken from hundreds of kilometers u applies a thorough knowledge of all pertains to environmental informa systems.

Parallel to its practical achieveme research activity is carried out for p projects and future application studies a variety of users.

Since 1977, Telespazio has attende the reception and pre-processing of d transmitted by NASA's Landsat satelli Today, it also does this for the Japan MOS-1 Satellite, created to study oceans expanses of ice. In the future, it likewise serve the European satellite ERS 1.

Telespazio also acts as the Ital Remote Sensing Center by distribut data and promoting its use.Specifica Telespazio is the National Point of Cont for the European Earthnet network special experimental missions.It ma Landsat data available within the E image Consortium and distributes all d from the French SPOT satellites on exclusive basis in Italy.

A forest grows in silence.

Our telecommunications network is constantly growing, spreading deeper roots, branching out in new directions. Our goal is to improve the infrastructures, products and services for communications in Italy and to the world.

STET

IRI group

ITALY 1990

Telespazio is committed to many fields from oceanography to meteorology, climatology and land area observation. In the field of oceanography, Telespazio provides a service for control of marine and coastal pollution, by making an indispensable instrument which monitors pollution phenomena in real time, available to interested organizations.

The Ministry of the Environment also made an agreement with Telespazio to survey the algae phenomenon off the shores of Italy by satellite, for the whole 1988 swimming season. A similar agreement was made this year with the Ministry of Shipping for early sighting and ongoing monitoring of the same phenomenon.

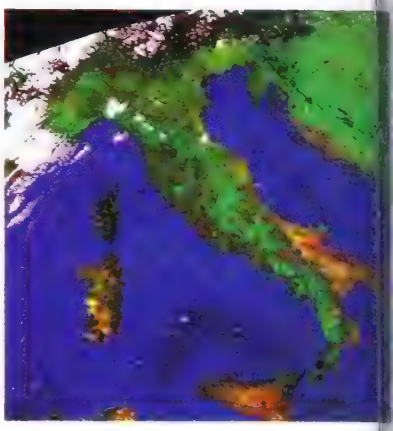
A remote sensing project for the Italian coast by means of updated, homogenous and synoptic data also is being done for the Ministry of the Environment. It will serve to classify lengths of coastline in relation to traces of pollution and evaluate the degree of insistent pollution found both along the coastline and in lakes and rivers.

Also, Telespazio will set up the Center for the Remote Sensing of the Mediterranean. It is aimed at the development of projects and applications for aerospace remote sensing, and will be used for observation of the Mediterranean Basin's land area, coastline, and marine environment.

The center will be located at Telespazio's earth station in the Scanzano area of Sicily.

Other remote sensing applications include forecasting and control of agricultural crops and protection of forests. The Terra del Sud Project will involve this activity by establishing an information system for agriculture in southern Italy. It will supply short-term forecasts, ground maps, statistical information, and other survey information, to achieve efficient management of agricultural and environmental resources.

The TELAER Project, in cooperation with Aeritalia, will involve establishment of an advanced aero-survey system for integrated management of land area in southern Italy. Elaboration of data relating to missions for checking and protection of the environment will take place at the Laser Center of Matera. This station is concerned with geodetic measurements



A SATELLITE PHOTO OF ITALY TAKEN FROM THE NOAA SATELLITE AND COMPOSED BY TELESPAZIO

received via the Lageos Satellite, wh
Telespazio manages on behalf of the
ian Space Agency.

Telespazio also is involved in numer
other collaborations, both on a dome
and international level, to develop ap
cations for the most modern remote se
ing techniques. In fact, Telespazio own

SIP CAR PHONE

AS YOU MOVE ABOUT IN YOUR C
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COSTS ARE VERY AFFORDABLE:
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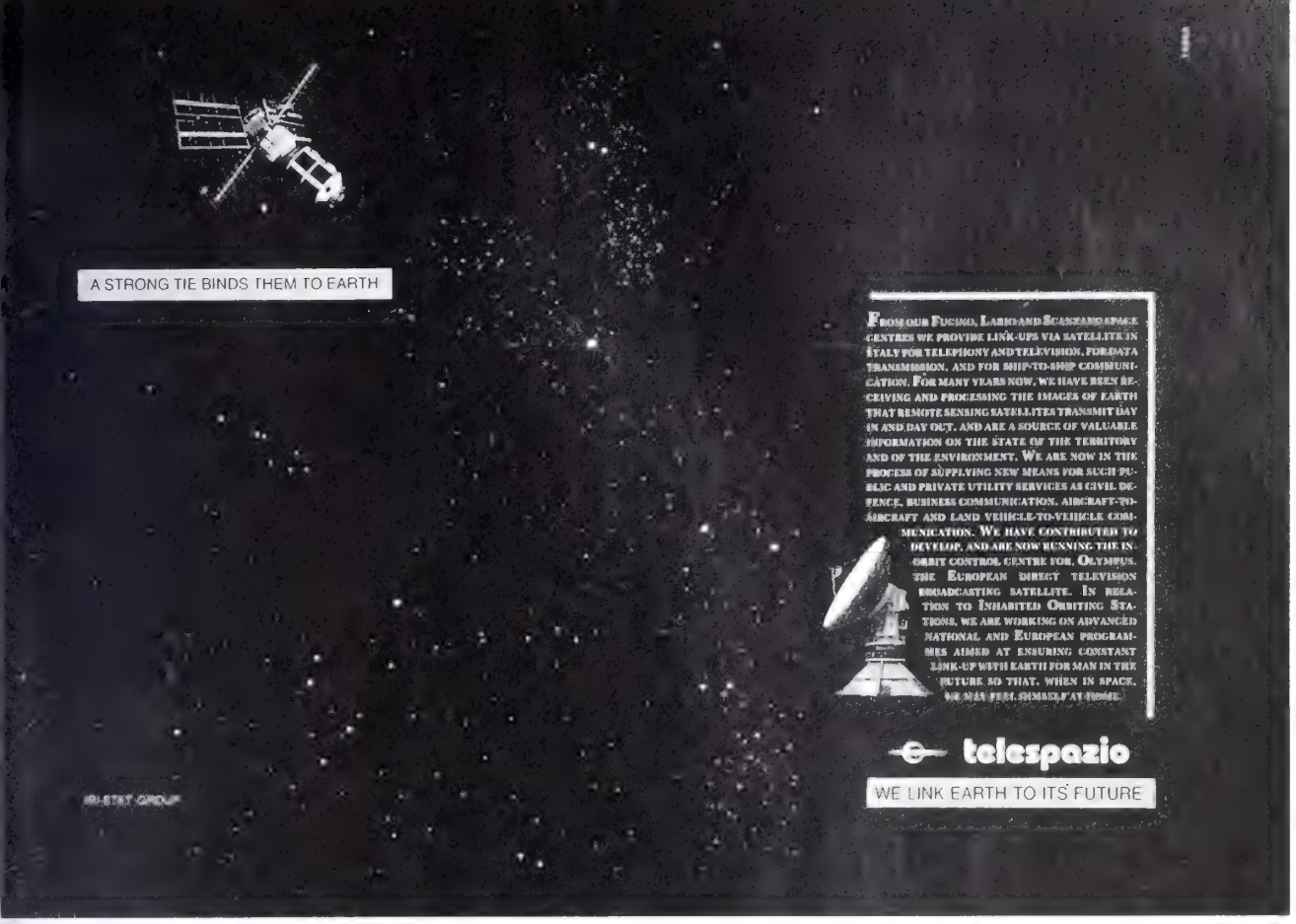

ike in the French company SPOT Image, which it holds exclusive rights for Italian distribution of SPOT satellite data.

In addition, it has a technical and commercial agreement for development of nt-applications programs with the ench company MS21 (Matra Group), hich is the European leader in reception d elaboration of remote sensing data. gether with other European entities, lespazio organized the Euromed Glie oup for development of international vironmental projects relating to the editerranean.

Further, an alliance has been forged th Planeta, the Soviet Space Center, for velopment of remote sensing systems. is agreement allows Telespazio to quire data directly from Russian tellites.

Telespazio also has a joint venture with e American company, ESRI (Environental System Research Institute), to set ESRI Italia, Telespazio and ESRI per formazione Ambientale e Territoriale .A. The new company will carry out tivities in the field of consulting, develment and installation of environmental ormation systems.

Italtel: Leading the race for product innovation

The opening of the European markets and the competition of new industrial giants through a series of recent mergers, are the two most demanding challenges facing the telecommunications sector in the 1990s. The market will demand advanced products and constantly improved services, in an international scenario characterized by the ever increasing needs of customers. Italtel, of the IRI/STET Group, is certainly well equipped to face these challenges as the leading Italian telecommunications manufacturer and fourth largest full-liner in Europe

A CONSUMER WITH ITALTEL'S SKYLINK RONDINE PORTABLE TELEPHONE

Important strategic initiatives have been taken in the last few years to prepare Italtel for the new international scenario. First and most important, is the strategic agreement for technological and commercial cooperation signed with AT&T in June 1989. The principal objective of this partnership, based on a long-term strategic alliance, is development of new technologies to satisfy an increasingly sophisticated range of market requirements.

Also, important initiatives have been taken internally to prepare the company for the 1990s. A Total Quality Project affecting the company at all levels was launched in 1989, which will have an impact on corporate culture and conduct. The goal is to bring all departments to their highest level, from research and development and production to marketing and maintenance

The agreement with AT&T has already accomplished a significant marketing achievement. In April, 1990 after careful evaluation of several different proposals, Italtel was awarded a contract by SIP

ITALY 1990

(Italy's telephone operating company) to supply the new intelligent network. This project, to be implemented in the '90s, includes installation of Linea UT digital exchanges with advanced functions. It will allow for services such as toll free numbers with advanced functions, private networks, value-added telematic services, and services offered by specialized companies.

Linea UT telephone exchanges are Italtel's core business in public telecommunications. More than 5 million UT lines, for a total of 2,000 Linea UT digital telephone exchanges including large capacity exchanges, will be in service by the end of 1990, and a significant further growth is expected in the coming years.

Linea UT exchanges have been installed in several countries besides Italy, a confirmation of Italtel's international presence. Today, over 40 countries worldwide use Italtel products, technologies and systems, for telecommunications networks.

The most recent international achievement of Italtel, announced in November 1990, is the formation of Telezaria, a joint venture which is the result of one of the most important telecommunications agreements concluded in the USSR. Telezaria, with facilities in Leningrad and Georgia, will have an annual production of 1.5 million Linea UT lines, destined primarily for the Soviet market.

Significant orders were also recently won in Argentina and several Eastern European countries, as well as in the Far East and Africa. In Nigeria, the telephone networks of Lagos and Port Harcourt and Nenevi, will be modernized via Linea UT containerized digital telephone exchanges, supplied jointly by Italtel and AT&T. In fact, following the strategic agreement, the two partners also set up a joint export company that operates with a common catalog for public switching, transmission, radio systems and network management systems.

Italtel's consolidated sales in 1989 amounted to Lit. 2,150 billion (about $1.8 billion) showing an increase of 26.6% over the previous year's performance. It had net income of Lit. 112 billion.

Significant growth in production volumes (+55% in respect to 1988) was registered in the transmission sector. In this area, the agreement with AT&T resulted in important projects for the implementation of new products developed to meet the requirements of a market characterized by rapid deployment of synchronous networks.

Both 1989 and 1990 have been boom years for radio systems in Italy. Italtel's contribution in this sector has been remarkable, showing 1989 growth in production volumes of 130% in respect to 1988, in the radio base-station sector.

Italtel has worked with SIP to plan, produce and install the network infrastructure (radio base stations) required for national coverage of the new 900MHz cellular radio mobile phone network.

In addition, Italtel produces cellular car phones—permanently installed, and portable—for the new 900MHz cellular system. Italtel is also working toward the development of a 900MHz pan-European digital system.

Italtel is also the leading Italian supplier in private telecommunications. Its offer includes a full range of products: from private digital branch exchanges (PABX) and key telephone systems to telephone sets and facsimile terminals. In the Santa Maria Capua Vetere plant, near Naples,

ROBOT AT ITALTEL'S CARINI PLANT INSERTING COMPONENTS ON PRINTED CIRCUIT BOARDS

eight robots and twelve manufacturing units producing telephones and private switching systems form one of Europe's most sophisticated production lines.

Success in development of new and advanced products requires great attention to technological innovation. Italtel is heavily committed to research. It yearly devotes around 11% of sales to R&D activities, as do all major high-tech companies involved in telecommunications. More than 2,300 engineers and specialists, i.e. 14% of Italtel personnel, work in R&D at the various company labs and plants. Moreover, following the agreement with AT&T, Italtel researchers can collaborate with colleagues at Bell Laboratories, AT&T's prestigious research center for electronics and telecommunications.

To support research activity, a continuously growing communications and data processing network connects over 2,500 mainframes, graphic workstations and computer terminals in various Italtel [illegible] and plants. Italtel has one of the larg[illegible] geographically distributed multi-platf[illegible] electronic design networks in Europe, [illegible] has developed advanced support [illegible] integration software to integrate des[illegible] engineering production, quality co[illegible] and technical assistance for its custom[illegible]

Sirti: Installing telecommunications for the Europe of tomorrow

Over the past year Sirti, (IRI–[illegible] Group), Italy's leader in the enginee[illegible] and installation of telecommunicati[illegible] made important strides toward com[illegible] tion of Italy's first, nationwide fiber-o[illegible] network.

That project, called the Eighties [illegible] gram and commissioned by ASST (or[illegible] Italian State Telephone Services Autho[illegible] is planned for final linkup in roughly [illegible] and a half years. When completed, it [illegible] mean a quantum leap forward for Ita[illegible] telecommunications capacity.

Notwithstanding the immediate p[illegible] tive benefits for the Italian teleco[illegible] munications system overall, a seco[illegible] phase of installation must follow, if Ita[illegible] to keep pace with this rapidly chang[illegible] field, explains Luigi Montella, Sirti's m[illegible] aging director.

"The first phase, involving the m[illegible] infrastructure which is about to be c[illegible] pleted, consists of 7,000 kilometers [illegible] optical fiber cable along Italy's autostr[illegible] or super highway," says Montella. "In [illegible] second phase, we must consolidate [illegible] network, to expand it and to build a[illegible] the redundant links necessary to ins[illegible] better quality and for ease of future m[illegible] work maintenance."

Such a project, if and when comm[illegible] sioned, could take three to four years [illegible] complete, he added.

Besides the Italian fiber-optic netwo[illegible] Sirti had a busy year. Indeed, it finish[illegible] 1989 with net profits of Lit. 191.8 bil[illegible] ($166 million) compared with Lit. 18[illegible] billion a year earlier.

Orders in-house at year-end 19[illegible] amounted to Lit. 1,254 billion, or [illegible] increase of 33% over the 1988 level.

In the first six months of 1990, [illegible] registered total income of Lit. 576.6 [illegible] lion, which corresponds to an increase [illegible] 19% over the same period in 1988. A[illegible] June 30, 1990, Sirti had orders in-ho[illegible] amounting to 550 billion.

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ITALIA/BBDO

N. DIULGHEROFF

Italtel is not only the leader in the Italian telecommunications but a worldwide player as well. Italtel has earned this recognition because of its advanced technology, superb quality and customer satisfaction. Today, Italtel's accomplishments around the world include the Linea UT switching system, transmission and office communication systems, technological and commercial agreements and participation in the most important international research programs.

Italtel

Other areas of activity for Sirti over the past year involved infrastructure work for SIP (the Italian Telephone Operating Company) that will insure better quality service and more network capacity

To achieve these goals, Sirti strengthened switching and transmission infrastructures as a step toward network digitization and creation of stocks in sufficient quantity to cope with demand.

Sirti installed fiber-optic cables in order to link switching centers, so that more lines can be created that are capable of handling rapidly growing Italian local and long distance traffic

It also worked, this past year, to prepare Italy's first optical fiber submarine lines that will link large population points to one another. This project is being called "festoni" or festoons, because the configuration of underwater cables linking city to city resemble the holiday lights that festoon Italian street festivals

Festoni will allow for easier linkage between cities along Italy's rugged, mountainous territory, such as from Pisa to Rome and from Rome to Naples

In addition to this, currently Sirti is working to lay submarine cables that will connect the island of Sicily to that of Sardinia and Reggio Calabria (on the mainland), and Sardinia to Rome and Genoa

Careful attention has been given to areas where Sirti must invest more resources to maintain its leadership edge in coming years

One of these, explains Montella, is in the installation of local area networks for entire cities. Though Italian cities traditionally use copper for terminal connections, the wave of the future lies in replacing these with optical fibers for multi-service. "In this market, we have an important role to play because we have all the technology from organization to building the actual network to finalization of the project," he says

Sirti also has a 50% participation along with Olivetti S.P.A., in a company called Eurolan, which specializes in development of local area network technology for buildings and smaller structures.

Another point of concentrated investment of resources for Sirti is in the area of network management systems. A special division at Sirti works to custom-tailor software with the ability to supervise and control systems

"This is an important area in which we have developed essential technology to assure the maintenance and quality of a network, including dynamic control in real time of its traffic at any given moment, the volume of traffic, its faults, attenuation, etc.," explains Montella

A SIRTI INSTALLED EARTH STATION ANTENNA FOR SATELLITE COMMUNICATIONS IN TANZANIA

In addition to completion of projects and investment in the future of telecommunications in Italy, Sirti also strengthened its international ties during the past year

"At the moment, our strategy is to consolidate our position in Europe," says Montella

One of the most interesting opportunities presented itself in Portugal during the past year, where Sirti finalized acquisition of a company. This firm, with the contribution of Sirti's 100% owned Spanish company SEIRT, will allow coverage of the entire Iberian peninsula

Eastern Europe presents another potential marketplace for Sirti, and there are discussions underway in Poland, Hungary and the USSR. Currently, Sirti is working on a project in the USSR, in accordance with Stet, to create a trans-Siberian optical fiber link that will connect Japan with central Europe and the Mediterranean basin

A bold step into a new decade

By Giuseppe Greco, managing director of Banco di Roma

Last year brought a wind of change to the Italian banking system and the Banco di Roma, one of the three banks of "national interest", took advantage of all the opportunities offered by the new legislation

During the course of 1990, in fact, Parliament and banking authorities abolished many of the structural and operational fetters which have historically characterized Italy's credit market, making it much freer and more dynamic.

It began with wider autonomy for ea bank in shaping its network of branch Banco di Roma immediately launched important plan to strengthen its comm cial activity which is present today w branches in 80 of the 95 Italian provinc

In the next few years, it plans to op another 250 new branches in areas r resenting high banking potential. T considerable increase in the prese number is made possible by a commerc and information technology organizat which can service the new sales poi without requiring heavy addition investment

The actual costs of setting them up w be contained, thanks to standardizati of work premises and rational redistrib tion of present man power. Each bran should reach the break-even point, i very short period of time.

The Bank's commitment on the dom tic market is linked with the will to furth develop its already considerable inter tional spread. In fact, there is a very lo tradition of Banco di Roma's presen abroad. Suffice it to say, that the Ba opened its first branch in Paris in 19 even before opening a branch in Mila

The Bank is present in the United Sta since the Twenties, and today h branches in New York, Houston, C cago, and San Francisco. A recent surv rated the latter branch first among f eign banks operating on the West Coa In yet another rating, based on to assets and dated June 30, 1990, Banco Roma ranked first among all Europe banks present in Chicago

In London too, Banco di Roma da back to the early Twenties and o branch there, operating in all the se ments of this important market, is amon the most important of European banks the capital

With the opening of the Hong Kon branch in 1980, Banco di Roma built span towards important markets in t Pacific area. Its presence there has alrea been strengthened by adding a securiti consultancy activity to the Tokyo rep sentative office which has been oper ing since 1971

In Europe, the Barcelona and Madr branches are doing very well on t Spanish market. On February 1, 1989, new branch was opened in Frankfu replacing the representative office ope ating there for many years.

The branches in Lebanon and Turke dating back to the first decades of t century, carry on activity in retail bankin as usual.

Till the end of last year, the direct ne

ROM SMOKE SIGNALS TO FIBER OPTICS TECHNOLOGY

MAN'S INTELLIGENCE LEADS TO WAYS TO COMMUNICATE

The evolution of man is the evolution of his apacity to communicate.

From graffiti on stone to the tom-tom, smoke ignals, electrical impulses and today, flashes of ght running along thin glass wires; man's intelgence develops advanced systems of registraon and control to transmit and exchange inforation.

Sirti contributes to this extraordinary evolution by studying, designing and creating long-distance telecommunications networks, urban networks, local stations, metropolitan and subway systems, railroad telecommunications systems, undersea cable communications and supervision and control systems.

Technological know how and organizational know how make Sirti a leader in telecommunications systems, both in Italy and abroad.

Sirti

builds the world of telecommunications

ITALY 1990

work of branches abroad was made up of 13 branches and 7 representative offices. To the direct network should be added also 16 branches of controlled foreign banks: in France (Banco di Roma France), in Luxembourg (Banco di Roma International), and in Belgium (Banco di Roma Belgio).

On December 31, 1989, assets in foreign currencies amounted to $25.2 billion.

In 1971 Banco di Roma underwrote a cooperation agreement with Credit Lyonnais, Commerzbank and Banco Hispano Americano. The four banks in the group, known as "Europartners", cooperate actively both in their domestic markets where they provide reciprocal financial assistance to clients by means of special procedure, and on an international level. The possibility of making available to clients a network of 100,000 employees

BANCO DI ROMA HEADQUARTERS IN ROME

and 5,000 branches, in four European countries and all over the world, must surely represent a winning card in view of 1993. Now, Banco di Roma is set on further strengthening its ties with partner banks.

The definitive liberalization of movement of capital, another important event marking the reform of the Italian financial system, did not catch Banco di Roma unprepared. Since the early Seventies, our Bank has been busy on the Euromarkets, progressively strengthening its activity both in making Eurolira loans and in Eurolira bonds issues. Thus far in 1990, Banco di Roma has organized Eurolira loans totalling Lire 1,500 billion ($1.3 billion).

According to a recent listing, Banco di Roma currently leads in Eurolira bonds issues, with about a 30% market share. At the beginning of this past October, Banco di Roma (which last May directed the issue of 200 million ECUs of the European Investment Bank), also organized and directed the first floating rate issue in ECUs for the Italian Treasury. This was the biggest issue of its kind in terms of value (one billion ECUs) and maturity (15 years).

Through its Corporate Finance division, Banco di Roma supplies clients with a wide range of services connected with import/export activities, in addition to a broad consultancy activity on investment opportunities. These activities support the network's commercial activities.

Adequate capitalization has permitted the development of this activity. In fact, Banco di Roma already can claim to be fully aligned with the ratios that the BIS (Bank of International Settlements) will begin to enforce in 1993.

On June 30, growth margins were between a minimum of Lire 3,000 billion ($2.6 billion) for direct client use and a maximum of nearly Lire 30,000 billion ($26 billion) for use at minimum risk. This is thanks to an excess of equity funds of about Lire 280 billion ($244 million) over the minimum risk coefficient required by the Bank of Italy.

Compared with the other coefficient, the so called dimensional coefficient, the excess increases to reach almost Lire 1,200 billion ($1.05 billion) with development potential in Italy of almost Lire 27,000 billion ($23.6 billion).

Self financing, already at a satisfactory level, together with subordinated loans (recently authorized by the Bank of Italy), will permit further growth in the future.

In any case, Banco di Roma is ready today to offer clients a wide range of services and products, thanks to a structured grouped around the Bank of companies dealing in leasing, factoring, management of private capital, consumer credit, and management of Italian and foreign mutual funds. This broad range of activities is carried out within the so called "polyfunctional group", the Italian version of the original German "universal bank".

Today Banco di Roma, as a group, is present in almost every sector of activity permitted to Italian banks. In addition, it has a long track record in foreign markets with a network of operative partnerships, holdings in foreign banks, and branches covering the most important international money markets.

ONE OF A SERIES OF AUTOMATED TELLER MACHINES MADE BY OLIVETTI GROUP

Sanpaolo: How an Italian bank faces the European challenge

Founded 1563, Istituto Sanpaolo di Torino is an Italian banking group with a global outlook, but whose roots go deep into the city of its birth.

"Outside Italy for greater strength at home" is one of the Group's slogans and indeed, Sanpaolo has stepped out of Italy to penetrate major international markets.

By rapidly expanding over past decades, Sanpaolo managed to convert itself from being a credit institution of strictly regional importance to being a leading national banking group, with a network of more than 700 branches all over Italy, and Italy's most active, fast growing bank on a worldwide scale.

Recent key figures reflect Sanpaolo's good performance.

In 1989, Group consolidated net income amounted to a record Lit. 650 billion, so that capital reserves grew to Lit. 4,700 billion. Group consolidated total assets soared over the past few years, amounting to Lit. 136 billion in 1989, with further improvement in Sanpaolo's international ranking.

In addition to these activities representing the bank's basic strength in the domestic market—commercial banking, mortgage and agricultural lending—the Group also has expertise in a broad array of innovative range of activities including:

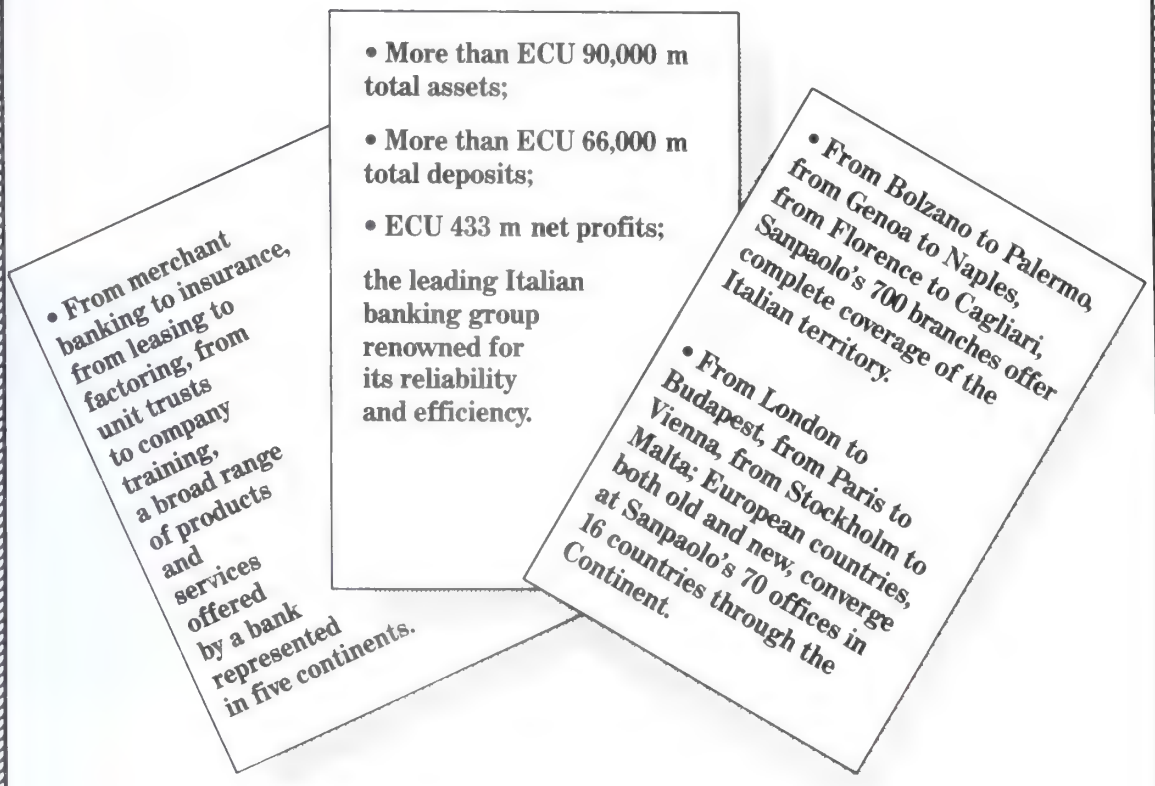
- distribution of financial products,
- fund management,
- financial intermediation,
- merchant banking,
- leasing and factoring,
- project financing,
- handling of data banks,
- management training and organizational consultancy,
- and insurance.

During the past decade, Sanpaolo's imperative has been to develop a comprehensive strategy in both Italy and abroad. The reason for this is not only to help Italian companies conduct their foreign trade, but also to assist and support them with the latest credit tools and sophisticated financial instruments.

To Sanpaolo, 1993 is not an empty target. It has been preparing for it seriously for a long time, and now because of its precise global strategy, finds itself extremely fit for the post-1992 period.

In fact, Sanpaolo started internationally by making its "European choice" in the late 1970s, with the transformation of

Sanpaolo: the most European Italian bank



SANPAOLO GROUP

To be a European leader, solid foundations are needed.
Those of Sanpaolo, for example.

Head Office - Piazza San Carlo 156, Turin - Italy

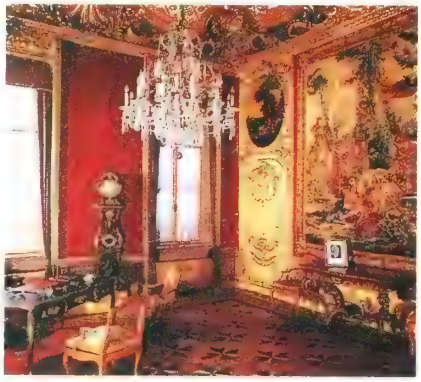
ITALY 1990

Frankfurt representative office into the first foreign branch and giving an important contribution to the development of the ECU

Facing the prospect of a European Single Market, Sanpaolo's long-standing know how in the ECU markets constitutes a major competitive advantage in the years to come

Sanpaolo's European expansion has been directed to three strategic areas

Sanpaolo's direct presence in Northern Europe includes branches in London,



THE SPLENDID LOBBY OF INSTITUTO SANPAOLO DI TORINO IN THE HEART OF TURIN

Frankfurt, Amsterdam and Munich, representative offices in Brussels, Zurich, and Stockholm, loan production offices in Dusseldorf and Stuttgart, as well as fully owned subsidiaries in Luxembourg and Austria. In addition, Sanpaolo formed an important strategic alliance with Hambros, one of Britain's oldest and most prestigious merchant banks, by acquiring a relevant stake

In southern Europe, the first step in France was transformation of the Paris representative office into a branch in 1986. Afterwards, the Group acquired a 50 branch retail network and formed strategic alliances with important French financial institutions such as Compagnie Financiere de Suez and Caisse de Depot et Consignations

Particular emphasis has been given to the Mediterranean area, where traditionally Italy has strong economic as well as deep cultural links. Indeed, recent important steps in the area include opening a representative office in Athens (1989) and a branch in Madrid (June 1990), followed by an agreement with the Spanish Banco Matutes in which Sanpaolo will become an important shareholder

Eastern Europe is Sanpaolo Group's third strategic axis where its acquisition of the controlling stake in Budapest-based Inter-Europa Bank is a Western first in Hungary

While Sanpaolo's primary intention is to consider Europe its domestic market, its strategic expansion has by no means been confined to Europe. Sanpaolo also has expanded in North America and in the Far East, establishing branches in the most active financial centers, such as New York, Los Angeles, Tokyo, and Singapore

In the US, an agreement with Salomon Brothers Inc. signed in 1989, is aimed at close cooperation in corporate finance and capital markets. This agreement represents another important step in a network of international alliances, intended to speed up "manufacturing" of highly innovative financial products and techniques, to be marketed and distributed in areas where Sanpaolo has a widespread network

This concept represents Sanpaolo's evolution towards the structure of a multinational bank, both "manufacturer" and distributor in Europe, its domestic market, and "manufacturer" in other selected international financial centers.

Sanpaolo will keep its identity in each market, both domestic and foreign. On the other hand, its mentality is one of gaining from and contributing to reciprocal exchange of ideas, traditions and innovations with major players abroad

The Italian banking law was recently reformed by Parliament. The new text provides Italian "banking foundations", such as Sanpaolo, with the possibility of changing legal status into joint-stock companies. This is, indeed, an opportunity that Sanpaolo is going to take, to compete more effectively with other major European banks

Italstrade paves the way

Italstrade, part of the IRI Group, is Italy's second largest construction firm, with annual sales volume of roughly Lit. 600 billion ($521 million) and active operations both at home and abroad.

It specializes in construction of roads and in particular, those with viaducts or tunnels, as well as railroads, airports, ports, dams, acqueducts, and other large infrastructure projects

Thanks to Italstrade's tradition of expertise and technical know-how, it has played a crucial role in the rebuilding of Italy's infrastructure after World War II. Overall this meant that it constructed more than 1,100 kilometers of super h way stretching from Northern through Sicily, with accompany structures.

Despite its importance on the Ita domestic market, vis-a-vis its Comm Market competitors Italstrade has a problem, explains Giuseppe D'Angio chairman

"This is really a problem faced b Italian construction companies, beca there are 30 to 35 companies with e ings in a close range, without a leaders who dominate all the oth says D'Angiolino, "In reality, there is o difference of about Lit. 100 billion million) in sales volume between us the others."

The expansion that is needed to edy such a situation will come f mergers and acquisitions outside of I says Nanni Fabris, Italstrade manag director

"In general, we are making a ju toward working abroad to rectify

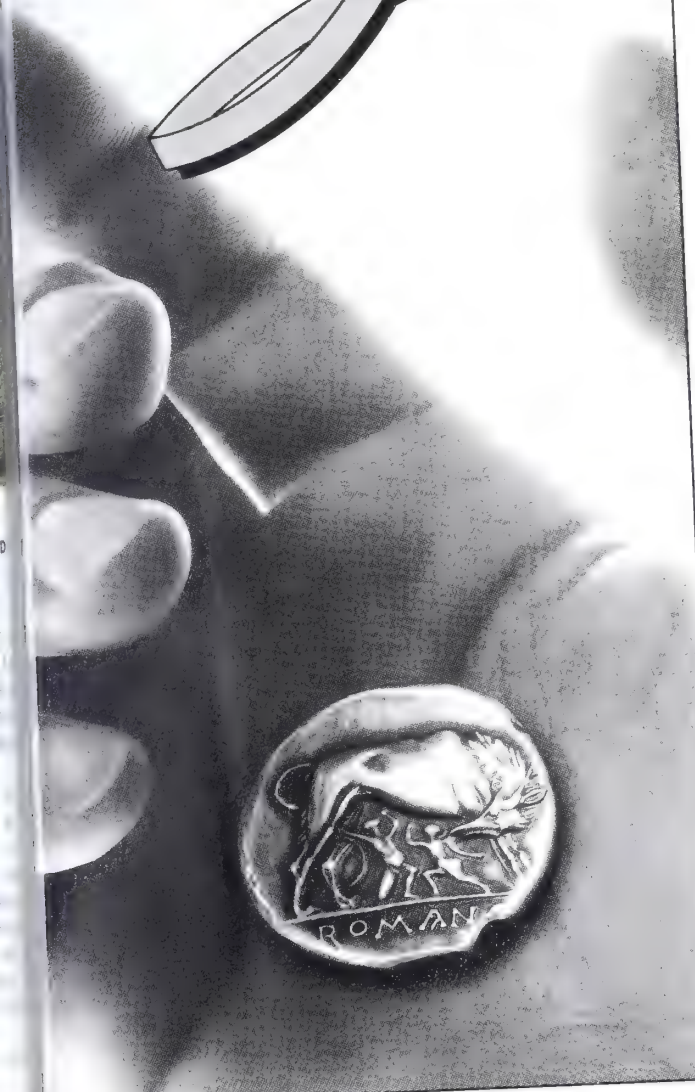
A SEGMENT OF THE TRAFORI HIGHWAY IN VARESE, (SESTO CALENDE), ITALY, COMPLETED ITALSTRADE

past few years in which foreign w was somewhat overlooked," says Fa "We are making a push into the E pean Community countries and into E ern Europe, where things are picking a bit these days."

Although there is no shortage of p ects in Italy itself, he says, there are many companies chasing them. In once lucrative Middle Eastern mar there is both tension in the Gulf and a of resources that can be committed future infrastructure works. Africa haunted by a lack of financing, apart f a few projects backed by World Bank Development funding

Within Europe, the first step has b

Banco di Roma



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From the financing of important projects to the solution of short-term cash flow problems, Banco di Roma has the key to all of these.

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ITALY 199

Italstrade's acquisition of Spanish c
struction firm, Solius of Barcelona, v
roughly Lit. 20 billion ($17 million) in 1
sales.

There are also Italstrade branches
consortiums in which Italstrade is a w
ing member, placed around Europe

In Kazakhstan, Russia, Italstrade
closed a contract to build a highway
the old silk road that extended from
Caspian Sea to China.

In Eastern Europe, Italstrade recer
won a contract in Romania to rebuild
highway that extends from Bucharest
Constantsa on the Black Sea.

Further, it is developing relationship
Yugoslavia, Czechoslovakia, and H
gary. In fact, Italstrade won a recent t
der to add a track to a highway alre
underway. This project, however, aw
completion of a package of financ
before anything else takes place, s
Fabris.

Indeed, the future of companies su
as Italstrade will depend, in large part,
their ability to master skills other th
construction, reasons D'Angiolino.

"In the future, companies increasin
will have to arrange barter and trad
situations and to put together all the n
essary financing for a project," he says.
places like Eastern Europe, where co
tries have been excluded from Wo
Bank monies and don't understand h
to go about doing things, our w
becomes less in doing things oursel
and more showing them how to do

As an example, D'Angiolino points
the division of Italstrade specializing
highway construction. Here, much m
than just construction takes pla
Indeed, they design and plan the proj
study the laws and regulations for c
cessions and look into financing and p
ting a package of funding together. L
when actual creation takes place,
division provides for continuous mana
ment and maintenance of the road.

Cofiri, growing to better serve IRI

Cofiri is the operating financial arm
Italy's huge industrial conglomerate,
Group. In the past 18-months, Cofiri's
sion has grown more sophisticated a
more international, as it operated for
first time in the domestic and inter
tional capital markets and took majo
shares in Group leasing and factor
units.

What's more, Cofiri intends to contin
pushing actively in the service of

)up's numerous subsidiaries on a com-
itive market basis, explains Leonardo
)nvino, chief executive officer
.ofiri was created in 1979 as a finance
npany specialized in both short-term
l medium-term funding intermedia-
) to support the IRI companies.
) addition to that, Cofiri was also an
ve player in the syndicated loan mar-
as well as in the placement of bonds.
)uring 1989, IRI financial manage-
nt decided to utilize Cofiri as a more
rsified and strategic financial arm. As
sult, Cofiri received a massive cash
ction which brought its capitalization
it. 200 billion ($173 million) from Lit.
billion, and had its function within the
)up centralized.
3y January 1990, Cofiri was investing in
capital market sector doing swaps,
ding itself via domestic commercial
)er, and doing foreign currency fund-
via a newly formed Cofiri subsidairy,
iri Servizi Finanziari (Cofiri Financial
vices)
he current situation, enables Cofiri to
d its position in Eurolira, or it can
row in a particular currency and then
a swap. Such capability is an important
/ance for Cofiri because it now can
l with international and foreign-based
nks in Italy
Also this past year, Cofiri went from
nority to majority share ownership
% in both cases) of two units that do
sing and factoring, (Cofiri Leasing SpA
d Cofiri Factor SpA), to push these
as as tools for Group subsidiaries.
Cofiri was restructured into a corporate
ance unit, to be much more effective in
ving the companies globally, explains
onvino
Judging from estimated 1990 results,
e changes are a real success story
leed, total Cofiri assets grew by more
an 30% during 1990. Last year assets
ew by 25% compared with the 1988
el
Cofiri will embark on international mar-
ts even more aggressively during the
ming year. Indeed, a 100% owned
ernational subsidiary has just been
tablished, Cofiri International, based in
e Cayman Islands.
This unit will be a vehicle for funding via
rocommercial paper and later through
e sale of U.S. commercial paper as well
ofiri International recently received a rat-
g of P1 (the highest commercial paper
ting available) from Moody's Investors
rvice in New York
"Cofiri International will be our main
hicle to enhance the IRI presence in the
ternational capital markets," says
onvino

italstrade
group
iri-italstat

Italstrade, established in 1905, became part of the IRI group in 1936.
Today, as part of the Gruppo IRI-Italstat, it is the leading company of the group's numerous construction companies specialised in various civil engineering sectors. These companies play an all-important role in designing, building and maintaining the Italian motorway network.
Italstrade, its subsidiaries and sister companies have built or are at present building: roads, motorways, railways, airports, port facilities and hydraulic, hydro-electric and nuclear generating plants.
Italstrade also operates abroad, in Algeria, Argentina, Iran, Iraq, Kuwait, Morocco, Mozambique, Portugal, Tanzania, Tunisia and Turkey.

ITALY 1990

Italimprese: Growing with Europe

The positive results reached in 1989 and the trust public and private customers at home and abroad, placed in Italimprese Group, shows it to be one of Italy's most vital entities and one that is growing with Europe

In 40 years of history, the Group not only tried to increase revenues, but to diversify activity and to widen its area of operation.

In addition to Europe, the Group is present with its products, work sites and initiatives on other continents

For the first time, in 1989, the Group earned consolidated income of more than Lit.500 billion ($442 million). This is a 17.87% increase compared to 1988. To this, further revenues of Lit.149 billion should be added as income from direct or indirect subsidiaries.

Net profit equalled 2.42% of total turnover in 1989, amounting to Lit.12.2 billion, or a 68% increase on the previous year

Orders on December 31 amounted to Lit.1,904 billion compared with Lit.1,794 billion a year earlier. The Group currently employs about 3,000 people.

During 1989, through its foreign holding company, Italimprese bought into three US high-technology companies Ecova Corp. of Seattle, Imatron of San Francisco, and CHI of Los Angeles.

Furthermore, it finalized international agreements in energy with Siemens AG, Techint and Stein Muller, in railways with Siemens AG and Kraus-Maffei and in the environmental area with Resexport, (France) and Severn Trent (UK).

Also 1989 saw the shaping of a more rational set up for production units, with the incorporation into Itin in Rome, of the Impa, Saem and Tecnam subsidiaries and; Simplar and Cisa subsidiaries into Sacma of Milan

Among the more important assignments completed during the year are:

- the offshore platform Giovanna of AGIP,
- a motorway tunnel in Hong Kong,
- the Enel power station at Solarino
- and the prefabricated keystones for the Channel tunnel

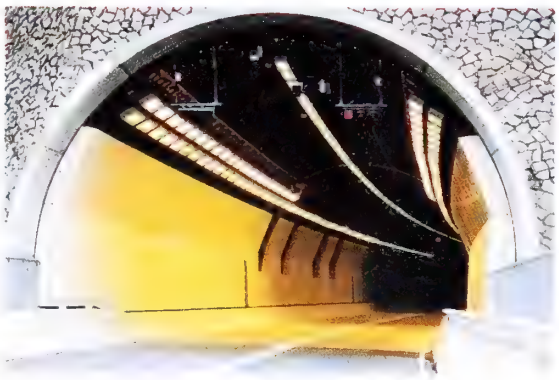
Orders recently acquired include construction of the jacket for the Tiffany platform in the North Sea (by operating through the Ital-offshore Consortium) and the construction of some of the infrastructure plants for the Euro-Disneyland complex in Paris.

Since 1947, when the first company was founded, Italimprese Group has played an important role in the development process of national industry. It grew from the earliest building ventures by spreading its field of production: today Italimprese means plant construction, advanced metal carpentry, offshore platforms, hydraulics, transport, energy installations (traditional, nuclear and alternative), industrial building, and warehouse automated systems

The Italimprese Group is a modern exponent in Italian and international engineering, from planning to building roads, motorways, tunnels, viaducts, dikes, aqueducts, hydro-thermoelectric power stations, school buildings, office buildings and factories.

At the same time, it holds the key to an innovative means of tackling agricultu such as large scale experimentation alternative crops and production of fo products via dehydration processes.

Among Italimprese's companies th is always one that can answer the nee of any territory or environme immediately



(ABOVE LEFT TO RIGH **MOTORWAY TUNNEL I HONG KONG AND A RESERVOIR IN SELARINO BOTH RECENTLY COMPLETE BY ITALIMPRESE**

(TOP) **MONACAIR A 109C HELICOPTER BY AUGUSTA-AVIOFER (EFIM GROUP) (*BOTTOM*) ENVIRONMENTAL MONITORING SYSTEM BY OFFICINE GALILEO-FINBREDA (EFIM GROUP)**

A new approach for plant construction, the Jacorossi-Petrochemical Consortium

In recent years there has been a gro ing need for construction of plants a infrastructure to be assigned to la associated business groups, capable performing a complete range of work this way, there is a single contract an single firm to deal with, accepting responsibility, with high quality progra and coordination between contract operating on the same project.

This is the basic reason for the rece establishment of a consortium betwe the Italian companies Jacorossi a Petrochemical International Instrume Company Impianti ed Energia

The consortium has a permanent str ture with central management respo sible for company policy, and a marketi organization responsible for develo ment of projects, each with its ov decentralized office, as well as a netwo of branches and agencies ensuring presence in all markets of interest to t Group

Petrochemical I.I. Co. Impianti ed En gia specializes in execution of mechani works such as structures and piping s tems, as well as electrical and instrume tation installations for refineries, offsho platforms, pipelines, oil wells, chemica pharmaceuticals, food plants, and th

ITALIMPRESE. MAJOR CONSTRUCTION WORK PLUS PLANT ENGINEERING.

BUILDING AND CIVIL ENGINEERING WORKS — COGEI SPA, COSNA SPA

METALWORK, PLANT ENGINEERING. — ITIN SPA, SACMA SPA

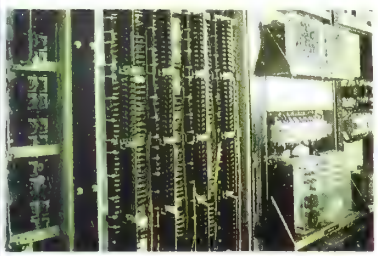
PACKAGE SOLUTIONS.

nies, whose specialized know-how covers a particularly wide range of technical fields and therefore enables them to tackle successfully major problems that call for interdisciplinary solutions. The Italimprese companies concerned with construction work and plant engineering design, erect, install and manage products of a highly innovative content. Their services are the fruit of purposeful research

Italimprese

Via di Villa Patrizi, 7 - 00161 ROMA - Italy
Tel. 6-8442961 - Fax 6-4403791 - Tlx 621252

and nuclear power stations.
corossi is part of the Fintermica
ıp and along with other affiliated
panies, specializes in execution of
ing and air conditioning plants,
ote heating systems, "co-generation"
eat and electrical energy, ecology
'domotronics".
ne latter term refers to the creation
intelligent automation" systems
buildings such as for air condition-
central heating, ventilation, co-
eration of heat and electrical energy,
ination, the remote control of doors



ONSORZIO JACOROSSI
NTROL PANEL PROVIDING
ELLIGENT AUTOMATION AT A
ROCHEMICAL PLANT

and gates, household electrical appliances, gymnastic and hydro-sanitary equipment, security of property and people, "telemedicine", control of alarms, telephones, interphones, data banks, computers, televisions and so on

Domotronics is a vast field that is constantly growing, and is of the utmost current interest to the consortium

The consortium does not confine itself to execution of plants, it also offers services for their smooth operation and maintenance.

Regarding maintenance in a general sense, thanks to expert technicians with up-to-date means and equipment, the use of computers and experienced knowledge in various sectors, the consortium guarantees maximum reliability and efficiency

C.M.C.: From Italy to the world

By Giuseppe Paolo Belletti, C.M.C President

Cooperativa Muratori & Cementisti—C.M.C. of Ravenna founded almost 90 years ago, is one of Italy's largest building enterprises. Total group revenue in 1989, including subsidiaries, amounts to Lit 460 billion

For 10 years C.M.C. has been operating abroad, as well. In this period, it billed over Lit.1,400 billion ($1.24 billion) for projects outside Italy

C.M.C. is active mainly in Asia (Iran, Malaysia and China) and Africa (Somalia, Ethiopia, Algeria, Burkina Faso, Ivory Coast, Sudan, Tanzania, Zimbabwe, Mozambique and Botswana)

Today C.M.C.'s major strength lies in the ability of its people. It has 4,339 employees in Italy and abroad

Those wishing to face the changes brought about in this sector by innovation must show increasing professionalism. Besides a flair for building which characterized the company in the past, the ability to analyze complex problems and come up with flexible solutions has been added.

With adoption of construction and instrumental technologies, and state-of-the-art computer and organizational systems, C.M.C. has reached an outstanding position among companies in the sector.

CONSORZIO
JACOROSSI
PETROCHEMICAL

INTEGRATED PLANT
BUILDING SERVICES:

- ENGINEERING
- CONSTRUCTION
- MAINTENANCE
- MANAGEMENT

Many years of experience
in Italy and abroad in:

PETROCHEMICAL - ENERGY -
INDUSTRIAL & CIVIL FIELDS

- Electrical & Instrument Installations
- Mechanical Constructions
- Heating & Conditioning Plants
- Telecommunication Systems
- Safety Installations
- Waste Treatment Plants

CONSORZIO JACOROSSI PETROCHEMICAL

Via Giorgione, 18
00147 ROMA - Italy
Ph. 39-6-5414953
Fax: 39-6-5414317

ITALY 1990

The longstanding commitment to building made by C.M.C. has evolved into a formidable acquisition of production resources: machines, instrumentation, and equipment. This, combined with new technologies and an efficient work organization, make the company capable of swift intervention worldwide.

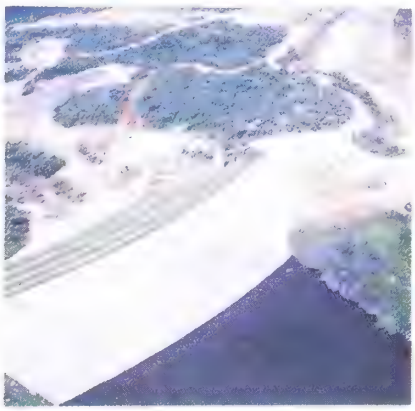
Projects completed over nearly a century of history, form a solid base of experience in all building sectors, both traditional and industrial. They include

- infrastructure works such as roads, railways, subways, tunnels, bridges, dams and aqueducts,
- plants for the treatment and re-utilization of waste products,
- production of industrial products, such as Monoceram ceramics, prefabricated items in concrete and reinforced concrete, and steel buildings,
- maritime works like dredging plants, quay sides, and protective works along shore lines,
- completion of manufacturing plants, including turnkey, for energy production and food manufacturing

In the last few years, C.M.C. has diversified further. New specializations deal with reclamation, environmental protection and the supply of product-service packages to industry and subsidiary activities

Through the great changes that have occurred this century, C.M.C. has gathered a great heritage of knowledge and professionalism

Its soundness today comes from a history of commitment, responsibility, and awareness. This is C.M.C. of Ravenna's main export, knowledge attuned to the future which contributes to the development of the nations that welcome it



THE MAZWIKADEI DAM IN ZIMBABWE, RECENTLY BUILT AND COMPLETED BY COOPERATIVA MURATORI E CEMENTISTI (C.M.C.)

EMSA (Ente Minerario Sardo): Granite, the bed-rock of the future

Interest in granite has grown out of technological and economic developments in its quarrying and manufact

Its popularity is due, in part, to its d bility. And its natural resilience to ha chemicals and pollutants has contribu to a gradual shift in preference towa granite over other stone materials, e cially for large exterior projects.

As witnessed recently, troublesc levels of deterioration have led to replacement of marble panels with g ite ones, in totally remaking the exteric important buildings.

Further, from an aesthetic poin view, granite offers an array of choice a variety of colors, grains, textures surface finishes such as honed, polish thermal finished or bush hammered.

In addition to facings, granite is rep ing other stones in landscaping proj such as for curbs, benches, tables, fo tains, and bases for street lights

Now too, granite is used regularl interior architecture, as well as for inte design alements such as kitchen bathroom countertops, and for dir and cocktail tables

Since W.W.II, and specifically in the 20 years, the technological developm of granite fabricating machines advances made in the construction ind try, have caused considerable growt the uses of granite

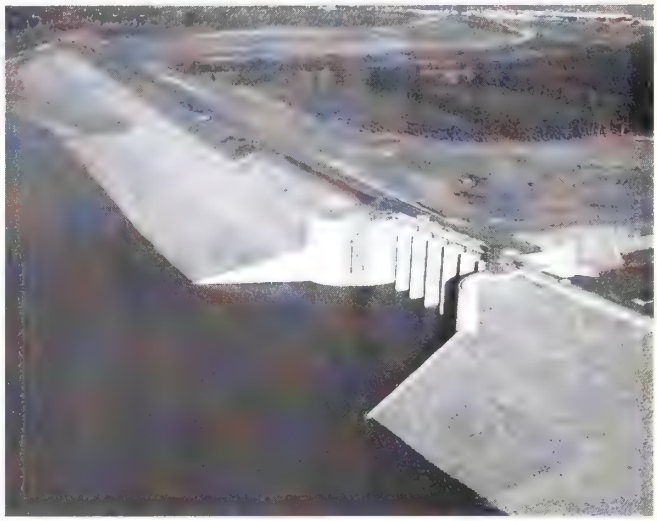
It is no longer used only as a struct element for buildings, but also as a veneer for covering and decorating b walls. Recently, in fact, it is being use high rise buildings as curtainwall (a prefabricated panel anchored on m or concrete structures)

A new cutting technology which p duces thin granite tiles (1 cm. or 3/8 i thick), has led to some very interest prospects. Made in standard sizes b continuous, integrated process, they a very attractive alternative to ceramic for floors and walls.

Italy, the world's leading manufactu of ornamental stone, is respnsible nearly a third of the world's total proc tion. About 80% of all Italian granit quarried on the Island of Sardinia and be categorized into three major fami the grays, the pinks and the ghianc (material with a larger grain).

These granites are selected by ar tects, contractors, stone dealers

rom Porta Romana to Pequenos Libombos
C.M.C. puts technology on the map



en it comes to versatility, C.M.C. certainly takes some beating. From Milan underground to a major dam and water supply system in Mo-ıbique, C.M.C. has the technology and the understanding to turn needs › reality.

ry day, the experience gained from ninety years in the construction iness is placed at the service of man and the environment.

oss the globe, C.M.C. is putting technology on the map.

Cooperativa Muratori & Cementisti C.M.C. di Ravenna

Material Intelligence

Head Office: via Trieste, 76 - 48100 Ravenna - Italy
ph. 0039/544/428111-fax: 0039/544/428554
tlx. 551332 CMC RA I

ne owners, and are exported and reciated worldwide for their aesthetic technical characteristics.

ıvestment omes to outhern Italy

Enrico Calamita, director general

After some 40 years of special state ervention, southern Italy is shaking off agricultural heritage and is evolving › an industrialized, urban society in the rkplace and its culture, via a not able d capital investment.

But the process of transformation isn't nplete yet. A system of special public pport continues to provide impetus for ther development

This policy is funded under Law no /1985, which apportions $106 million the period 1985-1993. Agenzia per la omozione dello Sviluppo del Mezgiorno (Agency For Promotion of velopment of southern Italy), based in me, oversees this special assistance d maintains ties with institutions. It works to manage their interests in a unified manner, to insure expansion of southern Italy's infrastructure network, to develop research and innovation, to facilitate production, and to favor supply and acquisition of services

As a result of these efforts, southern Italy's industrial base is gearing up to serve as the engine that will lead the area into further development

Companies are entitled to various forms of support to guarantee more efficiency and smoother functioning. They can also use the funding for a variety of research applications and to fill the gap during unexpected lapses in productivity, or on innovation for future modernization and organization of processes, management and technology

The production incentives in southern Italy focus mainly on grants, financing, tax reduction and eased leasing. They are designed to give priority to small and medium-sized companies and to help enterprises either locate themselves in more advantaged areas or to operate in more strategic sectors

Specifically, the incentives will provide for

- financing at low rates to companies, with the cost of money graduated in an inverse relationship vis-a-vis the investment entity,
- outright grants with the amount depending on the investment entity (i.e higher sums for small and medium companies),
- grants for companies entering priority sectors and advantaged areas,
- eased forms of leasing via alternative financing or cash grants,
- reduction in the cost of labor,
- and fiscal relief

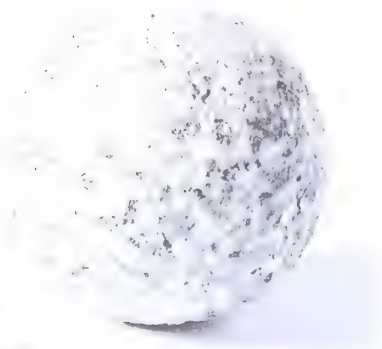
Emphasis is placed already on exten-

EXCAVATION AND ANCIENT TEMPLE RUINS IN SELINUNTE, SOUTHERN ITALY

A TOUCH STONE

Strong and discrete, refined and powerful, decisive and elegant. The particular character of Sardinian Granite is fruit of the millenial inspiration of sun, wind and sea sculpting their material through time into its unique forms and colours. And so the elements have bequeathed to man this noble stone which, from time immemorial, has given glamour and practicality to Mediterranean architecture. Today you'll find Sardinian Granite all over the world, in every climate and every setting, still lending its balance of grain, colour, and reflected light to floors, internal fixtures, external cladding and leisure areas. To work the stone to best advantage and maximise the range of finished products Sardinian Granite is processed in modern plants in the heart of Sardinia's granite producing area. The high quality of the raw materials, the extreme care with which they are worked and the strict quality control of our end products make Sardinian Granite extraordinary, unique and unbeatable. As we said, a Touchstone.

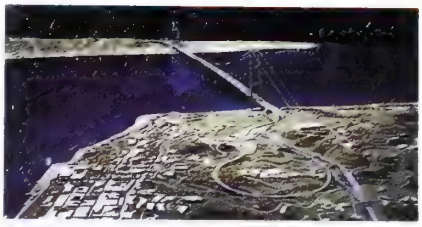
Sardinian Granite



EMSA

EMSA
THE SARDINIAN MINING AGENCY
VIA XXIX NOVEMBRE

ITALY 1990



AERIAL VIEW OF A BRIDGE PROJECT ON THE STRAIT OF MESSINA

sion of aid to activities of an industrial nature for manufacturing companies.

It is anticipated, moreover, that support will be created for programs concerned with research and the facilitating or modernization of research structures, as well as for small and medium companies associated with large industrial groups both domestically and abroad.

Currently, there are 228 industrial areas throughout southern Italy managed by special consortiums. They offer operators a favorable economic environment in which to locate new initiatives, for the presence of indispensable infrastructure and special services.

Until now, entrepreneurs and operators in southern Italy have shown undoubted interest in the "packages" of aid being offered. Proof of this can be seen in the 8,491 new companies which have received more than Lit. 17,000 billion ($14.7 million) in support from the Agency from 1987 to the present, for an attendent increase in jobs of 45,000.

Of 8,491 initiatives, 43.7% are small companies and 39% are operations doing leasing with machinery loans.

Therefore, investing in southern Italy works.

This is because enterprises benefit through a system of guaranteed incentives over time, which make it advantageous to launch various entrepreneurial activities.

Moreover, it works because it has created throughout a large portion of southern Italy a more favorable atmosphere in terms of infrastructure and services and for development of economic activity.

And finally, it works because simplification of procedure is assured, via efficient mechanisms and speedy incentives for interested operators, in a climate of certainty that reduces company risk.

Regaining the gift of health

Across the rolling hills of Umbria, between Todi and Spoleto, there is an ancient manor which is the realm of the celebrated herbalist Marc Messegue.

For Messegue, diet is the key to life which should focus on education and care in eating.

The Melezzole Health Center is not only a health farm or an herb center or beauty institute.

It is a place where the cult of the body and physical well being are celebrated to achieve regeneration of the spirit.

Genoa to host major Columbus exhibit

Beginning this coming May 15, Genoa, the birthplace of Christopher Columbus will host a specialized international exhibit entitled, "Christopher Columbus: the Ship and the Sea."

The exhibition will be about the sea and navigation as they are viewed from various disciplines, including biology, technology, economics, and history.

The project is being designed to incorporate Genoa's existing urban recovery sites, utilizing restructured buildings. A series of international conferences is planned in a new 1,500-person conference center. (Above official mascot for the exhibit.)

Zegna: tops in Italian menswear

The Ermenegildo Zegna Group is the world's leader in fine menswear with a marketshare of 35%. Designed for the most exclusive level of the market is the "Trophy Winner" line, made from superfine merino wool and individually tailored. Besides this, Zegna has created the Collezione Soft including suits, jackets, outerwear, shirts and ties designed for the consumer with young taste, who dresses in a relaxed and casual manner without giving up the finest in quality.

Elegance by Battistoni

Since 1946, in the heart of old Rome n Via Condotti, the House of attistoni has cultivated and mainained a taste for refinement without eing ostentatious. Its delicate fabrics vhether for ready-to-wear or made to rder bespeak quality and classic style or the man or woman seeking the bsolute in elegance.

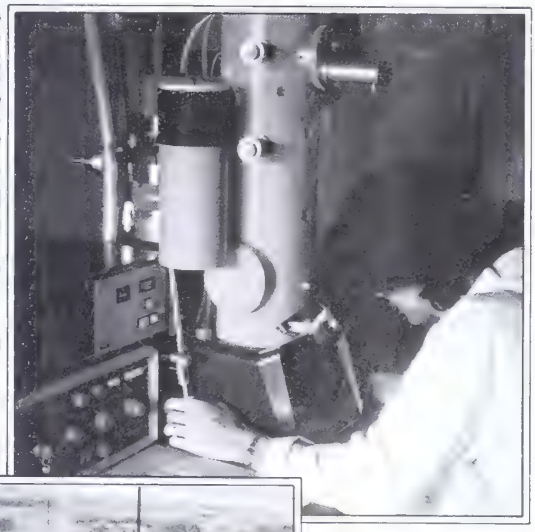
A DESIGN BY CARLO PALAZZI, EXPANDING HIS HORIZONS WORLDWIDE

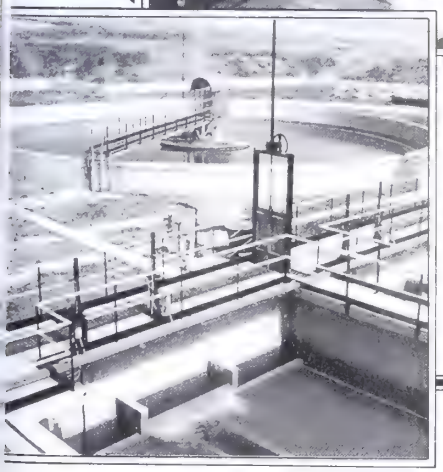
FINE WHITE WINE AND LIQUOR, FROM THE SANTA SOFIA VINEYARDS

ENIT, vying to make Italy the world's leading conference center

Though Italy has been a tourist mecca for centuries, the 1990s introduced a new kind of tourist.

PER LA PROMOZIONE DELLO SVILUPPO DEL MEZZOGIORNO





AGENCY FOR THE PROMOTION OF SOUTHERN ITALY'S DEVELOPMENT

It pays to invest in the south of Italy

00144 Rome (Italy) - 20, Piazza Kennedy - tel. 011396/59911
Public Relations and Press Office - tel. 011396/59912704 - fax 011396/5915533

ITALY 1990

Italian tourism, a progress report

By Marino Corona, president ENIT (Ente Nazionale Italiano per il Turismo)

The year 1990 contributed largely to increased revenues for the tourism sector in Italy. For the World Cup Soccer Championships, for example, ENIT had to make an investment of around Lit.10,000 billion to enhance visitor welcoming facilities, communications systems, and tourist services such as new hotels, more modern airports, new urban and intra-urban communications, new tourist information centers and stadiums which are among the avant guard in terms of both comfort and security.

More than 600 million TV spectators got a chance to admire 12 Italian cities—some of great fame such as Rome, Florence, Milan, Naples, Genoa, Verona and Bologna and others which deserve to be discovered by the public at large, such as Turin, Palermo, Udine, Bari, and Cagliari. All of those cities shared the responsibility of offering a new image of Italian tourism.

In these and all other touristic cities, of which Italy has more than 500, there were thousands of art and cultural exhibits and shows, as part of a varied calendar of annual events.

We staged a huge wave of promotional events in connection with the World Cup. Italy also turned out to be very efficient in orchestrating the security services for the World Cup. A huge sports event of that nature could have been disrupted easily by violence. But Italian authorities, in collaboration with those of other countries, insured maximum security.

This was another point which contributed positively to revenues for our country, because today the problem of security for those who travel is becoming more important than ever before.

This past year, Italy confirmed its position of international leadership in tourism, by earning more than $15 billion in revenues.

Tourism as an activity was instrumental in strengthening the Lira vis-a-vis other currencies, and in developing Italy's gross national product, which is the world's fifth largest.

Tourism is also an element that is positively associated with economic development, even though advanced industrialization presents environmental problems, as it does in all countries.

But even in that field, the Lit. 10,000 billion earmarked for tourism by the Government, will serve to create vast programs providing for ecological safeguards, the cleanup of rivers, lakes and oceans, the creation of parks, and for improvement of living conditions in the cities.

In the field of tourist promotion, the year 1990 registered great progress for reforms within Ente Nazionale Italiano per il Tourismo (ENIT or the National Authority for the Promotion of Tourism) too.

ENIT will be transformed into an entity that is more open to the private sector, leaner and more professional. We will be able to offer tour operators and foreign tourists more services, more information, more publications and more assistance.

With these positive points, I am confident that 1991, which appears quite worrisome and filled with questions for international tourism in general, will insure that Italy is among those countries more involved, not only in strengthening offerings of goods and services to travelers and vacationers, but also in better promoting new aspects of its history, its culture and its territory.

This traveler, about 93% of the tim
a man who on average is between a
45 and 54.

He spends almost three times m
than traditional visitors to Italy, is m
likely to arrive by air, and the numbe
tourists like him are increasing more
idly than any other category.

This new breed of tourist is the busir
conference traveler.

And indeed, at a time when traditio
tourism in Italy has been a bit fini
registering an 0.8% decline in 1
versus 1988, conference-related tour
grew by 4% during the same per
making it the fastest growing elemer
the Italian travel sector.

Conferences, congresses, semir
and meetings are big business in mod
Italy, without a doubt.

In fact, during 1988, 270,000 cor
ences were held in Italian hotels, earn
a combined total of Lit. 8,000 billion ($
billion).

In 1989, another study revealed t
on average, Italian hotels earned 22%
their total sales by hosting conferen
and seminars, while some reported ea
ing as much as 70% with such activit

What's more, the market for Italian c
ference tourism overall is growing a
rate of 15% per year in monetary ter
according to research sponsored by E
Nazionale Italiano per il Turismo (EN
the Italian tourist authority.

The growth in this field relates to
fact that supply is getting more profes
nal in this country and now is able to o
foreign visitors competitive structures a
services.

Italy is selected as a conference
over many other European count
because it offers, not only professio
conference facilities, but a myriad of p
conference extras, including cultu
touristic, historical, entertainment a
sports attractions.

Last year, about 50% of all conferen
held in Italy took place in the indust
North, concentrated mainly in
regions of Lombardy, Veneto, Em
Romagna, and Liguria. Central Ita
hotels held about 30% of all conferen
with Lazio and Tuscany being the t
most popular regions.

Southern Italian hotels hosted roug
20% of all conferences and meetir
and the islands of Sicily and Sardinia w
preferred locations, followed by
region of Campania with conferen
facilities along the stunning Amalfi Co

The single Italian city to host the m
meetings and conferences in 1989 v
Rome, followed by Milan, Rimini,
rence and Venice and Turin respectiv

I T A L Y.

THE WONDERLAND.

I went for
the chess convention.
I met
some pretty big people.

When it comes to making clever moves, we chess players are second to none. Which is proven by our choice of Italy as the place to hold our chess convention. As the tensions of the game mounted, the nearby sea would calm us with its gentle waves. The ubiquitous greenery softened our nerves and art treasures everywhere lifted our spirits. And wherever we went, wherever we dined, we were treated like royalty. Most chess conventions are remembered for the games. This one will be remembered also for its many intermissions. Even if we hadn't played great chess, Italy would still have been a clever move.

ENIT

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GOVERNMENT
TRAVEL OFFICE

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EVAN I. SCHWARTZ

FORWARDING THAT WS YOUR TRAIL

Call it the ultimate in call forwarding. By 1992, Japan's Nippon Telegraph & Telephone Corp. says it hopes to implement a concept known as the "follow-me phone." With it, NTT plans to assign phone numbers to people rather than to telephones. Each subscriber will get a 10-digit number embedded on a calling card. As they travel around hey'll insert their cards into special public terminals ıch in the number of the phone where they can be . Cellular phones will be able to receive such calls, too. ast, the call-forwarding service currently available in nd most of the U. S. requires keying in a forwarding before you leave your home or office.

e NTT can offer this new service, it must first get nent approval and develop special network software d readers. NTT is also doing research to see whether ıre willing to pay for it. American companies are in the ages of experimenting with similar systems.

COMPUTER COMPANIES, 1991 SN'T LOOK LIKE A BARN-BURNER

ɔuter and communications companies that are hoping their fortunes to improve may find 1991 disappointing. the grim message from an Index Group Inc. survey of 400 major North American buyers of computer and nications products and services. The Cambridge (Mass.) ter consultants say that growth in next year's computer s will be the lowest since it started the survey in 1987. m estimates that 1991 computer budgets will rise 5.3%, from 7% a year ago. That means growth will barely next year's projected 4% inflation rate.

's spending, and who's not? According to Index Group, ɔst vigorous consumers will be computer and software s themselves, which will increase spending by 10%. Oth- lustries planning higher-than-inflation budgets are aceuticals/health care, consumer-products makers, and s. Industries cutting back include media/entertainment erospace, which will respectively spend 1% and 3% less hey did in 1990.

S SOFTWARE CAN HELP RESTORE T MEMORY—FOR HUMANS

ɔout 12 million people in the U. S. suffer from severe njuries, disabilities, the effects of drug abuse, or neuro- l disorders. Often, their condition causes memory loss or le recognizing everyday objects. IBM has developed soft- that could help them. A package called THINKable sharp- nemory and perception skills, IBM says, by flashing differ- mages on the computer screen and asking patients to recall the order in which they appeared, among other tasks. THINKable employs animation, digitized photographs, and natural voices to lead patients through a variety of drills.

Using touch-sensitive screens, a patient can point to the image of a chair, for instance, and then identify other images that go with the chair, such as a table. Or the patient can select an object, such as a dog or a fire truck, and match it with the sound it makes. Available in March for PCs using the OS/2 operating system, the $4,800 software is designed to make patients less dependent on their doctors, therapists, and family members. The software can also help clinicians create graphical reports on their patients' progress.

MORE CORPORATE PC BUYERS WILL HEAR 'ATTENTION, K MART SHOPPERS'

It's time for computer makers to take discount merchandisers seriously. Most businesses still buy personal computers and related gear from dealers such as ComputerLand Corp. But an estimated $1.4 billion, or 5%, of the industry's $28 billion in retail sales this year will flow through general-merchandise chains such as Wal-Mart, K mart, and Sears or electronics superstores such as Circuit City, says Merrin Information Services Inc., a market researcher in Palo Alto, Calif. That's only up from 4% of total sales in 1989, but Merrin says that a critical mass has now been reached.

These chains can offer prices comparable with mail-order houses and below those of specialty dealers because they don't have to pay trained technicians and repair staff or provide other costly customer-support services. Merrin figures that shrinking budgets will cause more businesses to consider buying at department and discount electronics stores—even though prominent companies such as Compaq Computer Corp. and Dell Computer Corp. refuse to sell through them. Within five years, says Dataquest Inc., as much as 18% of all personal computer-related sales will be made through such stores.

HOW TO DESIGN PRODUCTS THAT FIT LIKE GLOVES

People of different shapes and sizes sometimes do things in different ways. That simple notion has inspired a new personal-computer software package aimed at engineers and industrial designers who create cars, furniture, hand tools, and kitchen appliances. Such items need to have a good "human fit"—for all sorts of humans.

The package, Mannequin, helps engineers make products fit via a library of ergonomic data on adults and children of all body types and nationalities. The $699 program, developed by HumanCAD in Melville, N. Y., a unit of Biomechanics Corp., works with computer-aided design software such as Autodesk Inc.'s AutoCAD. Together they can create complex human figures on computer screens that can walk, bend, and grasp objects. This way, a designer can develop a toothbrush design or an airplane seat that a 7-foot Scandinavian man or a 5-foot Japanese schoolgirl can use with equal ease.

COMPUTERS

ZIBA: HIGH TECH'S LOW-KEY DESIGN HOUSE

Sohrab Vossoughi's work is a hit in Silicon Valley—and Japan

External disk drives are the zombies of the computer industry—gray boxes without soul. Not the Tsunami. One side is wavy, like its Japanese namesake. Another has a delicately curved lavender cylinder.

But don't be deceived by the eye-catching styling. Every feature serves a practical purpose. The wavy configuration allows the drive to sit firmly on its side, since only the front and back of the wave touch the table. That's more stable than flat plastic, which can warp. And the cylinder gently disguises the vents for the fan. The drives stack easily, because the top of the cylinder is concave and the bottom convex. Designed to use only one screw, the disk drive's plastic parts can be quickly snapped together and then snapped apart for disassembly and recycling.

The Tsunami marries beauty and mechanical engineering—the hallmark of its creator, Ziba Design Inc., a tiny industrial firm in Portland, Ore. "Don't pay us to do cosmetic things for you," says Sohrab Vossoughi, Ziba's 35-year-old founder and president. "That's a waste of effort. Give us the freedom to make a functional contribution."

NO DICTATOR. Ziba's greatest strength may lie in the personality of Vossoughi himself. An Iranian who emigrated to the U.S. in 1971 and graduated from California's San Jose State University in 1979, he radiates calmness and cooperation. In an industry dominated by gargantuan egos and soaring arrogance, Vossoughi stands out as low-key and diplomatic.

Clients like it that Vossoughi is no design dictator. "Ziba tends to be more sensitive to the needs of customers, rather than imposing its own design philosophy," says Donald R. McClelland, an industrial designer at Hewlett-Packard Co.'s printer division based in Vancouver, Wash., outside Portland. "You don't have the egos to work with when you're working with Ziba." Adds Paul Febvre, an HP executive who chose Ziba to design two of the company's Apollo Series 9000 workstations introduced this year: "Vossoughi is flexible enough to work in a corporate environment."

Vossoughi is no stranger to HP. His first job was at Hewlett-Packard, where he designed printers. Three years later, in 1982, he started consulting on the side for some local high-tech startups. His first project was a tall, sleek automatic-debit machine, which allows customers to pay for gasoline by sliding a debit card through a slot.

That attracted the attention of Pro-Form Inc., an Oregon exercise-equipment maker, which gave Vo enough work to set up his own fi cycling and rowing machines signed for Pro-Form were sim colorful, meant to appeal to wor older people who might feel inti by typical black, metal equipme soughi chose the name "Ziba," "beautiful" in his native Farsi, company.

'FRESHEST WORK.' Ziba's produc clear hit. The Industrial Design of America has heaped awards ever since 1985. This year, Vo and his team won awards for e ferent products, including the drive, a Nike personal electronic monitor, a portable water pur Dow Chemical, a central process for Intel, and two Denver Ins lab products. "Their design is fir says Joel Kamerman, president Cie Ltd. in Tigard, company that makes drives. The drives were cessful that La Cie was ly acquired by drive Quantum Corp.

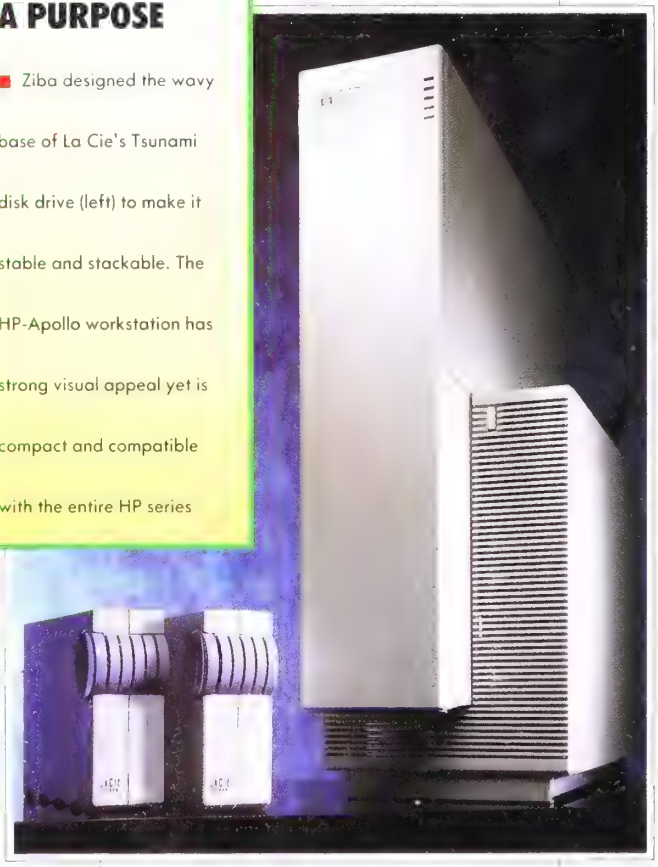
Even design-conscious Computer Inc. signed year. "Ziba does some freshest work," says Brunner, Apple's man industrial design. "They ly and exciting, fun wit ing frivolous. And they good understanding of ogy." Ziba's work for hush-hush, but so far done four projects: co studies for several pro won't name, plus anot "that will be unique to promises Brunner.

Ziba's designs are als ing eyes in Japan. Three magazines have cover soughi's work, building pan's growing fascinat American design. In n ber, his products were in a high-profile displa kyo, and he gave a sp about 100 Japanese exe He came back with t tracts from Tanita Corp. to desi tech bathroom scales, and he ha with Bridgestone Corp. about and Shoei Kako Co. about mo helmets. Matsushita Electrical I Co. has invited him back in "We are getting ready for a hu rush of work," says Vossough hoping Japanese clients will acc as much as 40% of total billings

Ziba's work has become so that Vossoughi, who started as

BEAUTY WITH A PURPOSE

■ Ziba designed the wavy base of La Cie's Tsunami disk drive (left) to make it stable and stackable. The HP-Apollo workstation has strong visual appeal yet is compact and compatible with the entire HP series



)p in 1984, recently increased his 14. But that's still not enough to ith 16 projects. Ziba's billings, ave been jumping about 60% an- will slightly exceed $1 million in ates are going up for 1991.

)ughi's reputation for being able within a corporate culture, plus renticeship at HP, made him a choice when Febvre decided to ide for a designer to do the new -Packard Apollo 9000 Series 400 ations last spring. The HP-Apollo had just taken place, and Febvre to aerate HP with fresh ideas and on the in-house design staff.

)ld Vossoughi he wanted an inno- lesign that would make a state-)out the power behind the recent llo merger. He wanted a bold de- from the typical computer boxes nd on the floor next to a desk. It be visually appealing and com- ith easy access from the front. product still had to be compati- h the entire HP series.

AL SHOALS. After signing on in 989, Ziba shuttled two designers n Beaverton, Ore., and Fort Col-)lo., three days a week for five , consulting with HP-Apollo engi- They came up with an elegant that looks like two rectangles—ger, one smaller—melded togeth- eflect HP's merger with Apollo. It actical as well as symbolic.

gning the product was the easy egotiating the shoals of corporate was a lot tougher. From the Febvre made sure he covered his l bases with top management, in- designers, and Apollo.

Febvre overlooked one powerful the marketing department. When -Apollo 9000 Series was unveiled this year, marketing blanched. ughi's design was just too differ- was trying to stretch the design in the corporate environment," s Febvre. "I think I let him go a)o far." In the first print ads for ew workstations, Ziba's product elegated to a small corner of the Marketing had had its revenge. , however, went with Ziba. And arketing Manager Karl Freund ays that sales have been "out- ng."

keting, of course, is not Ziba's job. ughi deals on a different plane. He about "ergonomics of the mind," v comfortable a design makes you efore you touch or use it. He his products to be completely riendly, emotionally appealing, imple controls that are understood vely by the consumer. In his quiet Vossoughi is describing a new defi- of product quality.

Dori Jones Yang in Beaverton, Ore.

Lookin' good. Keep it down by keeping it off.

Often the best way to keep that blood pressure down is by keeping that weight off. And you're doing it. Congratulations. Bet you feel wonderful. After all, you're in control and the easy part is taking your pills and cutting down on salt.

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Seasons Greetings from Everyone at Yellow Freight System.

YELLOW

Yellow Freight System, Inc.

DATA STORAGE

SMALL DISKS CAN SAVE A LOT MORE THAN DATA

Arrays of 5¼-inch disks are far more efficient than one large drive

Arkwright Mutual Insurance Co.'s computer room is proof that a good thing can get out of hand: Row after row of computer disk drives, each the size of a refrigerator, jam its 2,300 square feet. Over the years, those drives, attached to an IBM mainframe, have given workers at the Waltham (Mass.) company instant access to millions of records. But now, "we're plain and simple out of space," says Computer Services Manager Raymond G. Powers.

So Arkwright is testing a radical new approach to computer data storage. It's trying out a "disk array"—a gaggle of relatively tiny disk drives that together do the work of much bigger ones. Arkwright's array, supplied by EMC Corp., is a gang of 5¼-inch disk drives, similar to those in many desktop computers, that is designed to do the job of the massive, 14-inch drives the company uses now—but at one-third the price and in one-third the floor space. Best of all, claims EMC, the array's disks can back each other up, so there's almost no chance of losing data.

SPACE CRUNCH. Arrays of small disks are doing for data storage what the microprocessor has done for computers in general—rewriting the rules about cost, capacity, performance, reliability, and size. The change is bound to cause upheaval in the $11.4 billion mainframe disk market dominated by IBM. Mainframe disks currently account for 10% of IBM's revenues and a big chunk of profits. And growth is phenomenal: Customers such as Arkwright increase mainframe-disk capacity 45% a year as they store ever-larger volumes of banking transactions, medical histories, general ledgers, and other data.

After years in the lab, disk arrays are showing up everywhere. The technology is now offered or being explored by IBM, Control Data, Tandem, Fujitsu, Compaq, and Storage Technology, among others. They're being adapted for everything from desktops to supercomputers. Phil Devin, an analyst at market researcher Dataquest Inc., estimates that array shipments will grow from 4,700 units this year to 109,000 by 1994.

> The cost of storing 1 million characters of data has tumbled from $27 five years ago to less than $6 today

What makes the new arrays possible are disk drives the size of a fat hardback book with 5¼-inch platters that can store as much as 1.6 billion characters of data each. And at 6 million units a year, the 5¼-inch disk business is achieving enormous economies of scale. The cost of storing a megabyte—or 1 million characters—of data on such disks has tumbled from $27 five years ago to less than $6 today—about a third what it costs on IBM's latest mainframe drives.

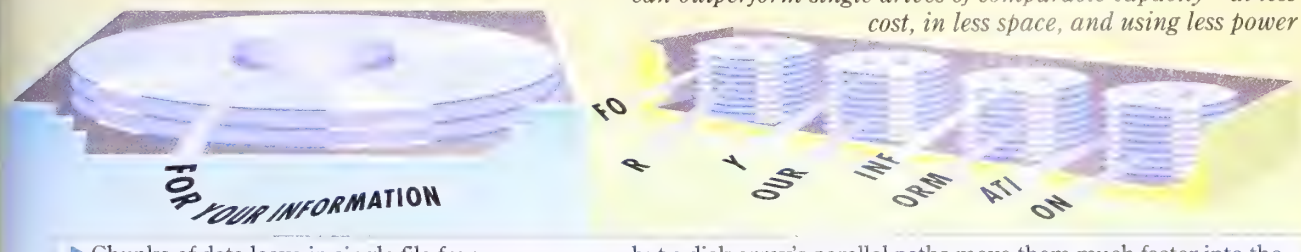
But there's more to arrays than just low prices. Randy H. Katz and other researchers at the University of California at Berkeley have done pioneering work in disk arrays, funded by a consortium of computer manufacturers that includes IBM, Digital Equipment, and Sun Microsystems. Their project, named RAID for redundant arrays of inexpensive disks, has worked out six basic array designs, each tuned for a specific task. For fail-safe operation, critical in handling cash-machine transactions, for instance, an array's disks can be programmed to store duplicate copies of all data. If one drive fails, its twin instantly takes over. Another RAID design offers similar reliability in less space by spreading a single copy of the data across several drives. It also stashes a little extra data on one other drive, from which the array's control computer can quickly reconstruct data lost if any of the other drives fail.

Fast access to large amounts of information is another RAID goal. Large-diameter drives have long been the fastest in retrieving data. But the data move single file, one chunk after another. Diskmakers have approached the limit on how fast they can spin large disk platters and how many sensors they can place over each to read and write data. But small platters can spin faster and more reliably. And using many of them increases the number of read/write sensors that can be employed (diagram). This is such a breakthrough that IBM has told customers it plans to use it for scientific computing in a few years.

In commercial data processing, though, the disk array's strongest allure is that it saves precious data-center

HOW DISK ARRAYS WORK

Wired together properly, groups of small, inexpensive disk drives can outperform single drives of comparable capacity—at less cost, in less space, and using less power



▶ Chunks of data leave in single file from a traditional disk drive at rates of up to 4.5 million characters per second*...

...but a disk array's parallel paths move them much faster into the computer's processor—up to 10 million characters per second.** And an extra drive can secure data against equipment failure

*IBM 3990 controller and 3390 disk drive

**A. Ciprico Inc. controller with an array of four Maxtor Corp. disks

space. EMC's array is no larger than a four-drawer file cabinet, yet it holds up to 24,000 megabytes of data, or more than 6 times an IBM 3390 drive of similar size. And at the rate small-disk technology is advancing, Arkwright's lone EMC array next year may store 48,000 megabytes—more than what's now in the company's 11 towering IBM cabinets.

The array business is beginning to take off. San Francisco-based SF2 is producing an array for Digital Equipment Corp. minicomputers. Maximum Strategy Inc. recently reworked a supercomputer-oriented array for workstations. Tandem Computers, a leader in fault-tolerant computers, has acquired fledgling Array Technology Inc. Other companies, including Control Data, NCR, and Ciprico, sell disk array controllers to which others add their own disk drives.

REBOUND. The biggest array targets are mainframe disks, most of which attach to IBM machines. IBM has 87% of the market and has enjoyed dwindling competition—and 60% gross margins—as U. S. diskmakers failed to keep up with crushing costs for developing large disks. But RAID technology is giving EMC and Storage Technology Corp. a new shot at Big Blue. Storage Technology early next year plans to unveil a sophisticated array-based system code-named Iceberg that will store data for IBM mainframes and other computers. "All they need is just a small percentage of the opportunity," says Daniel Mandresh, an analyst at Merrill Lynch & Co. Analysts expect arrays to help EMC this year to rebound with profits of $25 million on $170 million in sales after an $18.5 million loss on sales of $132 million last year. By 1994, says market researcher International Data Corp., mainframe arrays will be a $5.3 billion business.

IBM's response? For now, it says only that it will offer arrays on a special-order basis for supercomputing. But industry watchers believe it is developing other arrays, including a project called Sutter. In the meantime, it's making too much profit from large drives to replace them much before 1995, most analysts reckon. As Paul R. Anderson, who oversees Control Data's array business, points out, IBM will likely abandon big disks and move to a single disk-drive size, if only to share development costs across PC, mini, and mainframe lines.

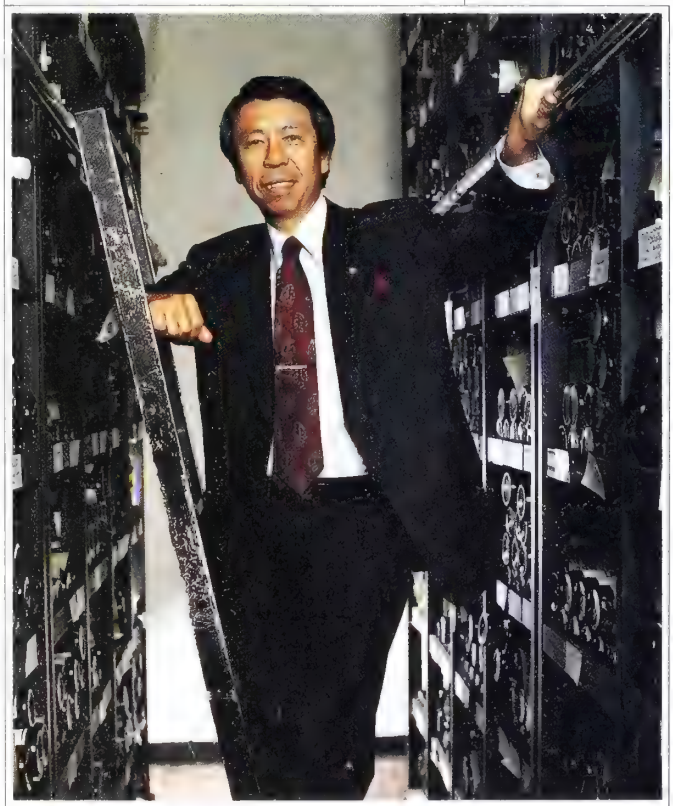
IBM isn't likely to be a loser, even if it's a laggard. Demand for its big disks has grown by 30% a year for the past three years, according to market researcher Disk/Trend Inc. Customers "buy disks until they run out of floor space," says Richard Winter, chief technical officer at Computer Corp. of America, a software maker. Only with arrays, filling the floor may take a bit longer.

By Gary McWilliams in Boston

HE DOESN'T WANT HIS SUNTORY STRAIGHT

With booze sales flat, President Torii is adding bottled water

Harry Hersh still chuckles about his first golf match with Shinichiro Torii. It was back in 1981, a year after Suntory Ltd. bought the Pepsi bottler where Hersh was president. Rain was coming down in sheets, turning North Carolina's famous Pinehurst No. 2 course into a giant water hazard. But Torii, a young Suntory exec on the rise, insisted on playing. So off they went, just the two of them on the deserted course, splashing through puddles and soaking their clothes. Torii finally took cover after nine holes, but only in deference to Hersh. "He shot a 44 on the first nine—pretty good for driving rain," recalls Hersh. "He's a very determined man."



SHIN TORII'S OTHER VENTURES INCLUDE BASEBALL AND BROADWAY

Since March, Torii has been putting that determination to work as president of Suntory, the liquor giant his family founded 90 years ago. With revenues of $5.4 billion, Suntory is among Japan's largest private companies. But fo past three years, sales have beer The problem is that Suntory gets a 60% of its sales from spirits, a sta market. And beer, which accounts f additional 25% of revenues, is und tense competitive pressure. Some that Suntory, once a pioneer in c advertising, hasn't paid enough atte to marketing and has let rivals cat "It's not a matter of money," con Vice-Chairman chio Torii. "I matter of the h

Shin Torii, thinks he has t swer. Educat the U. S., the f chief of Suntor ternational di has set his sigh cultivating overseas busi The company some U. S. int (table, page 4 cluding a league baseball in Alabama. Bu ii's acquisition-d growth stra dubbed "D 2001," calls boosting intern al business to third of sale from the cu 7.5%. Most would come fro U. S. Torii env total revenue $7.7 billion by end of the deca decent improvement given the c ny's flat sales in the late 1980s.

A soft-spoken consensus-builder, could hardly be less like his auto and often volatile predecessor, Saji. During his first few mont president, Torii hit the road to e his team-oriented approach to Sun 4,700 employees throughout Japan. trying to promote the idea that eve should speak up," he explains. "I ha listen." Saji, one of Japan's most c

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matic businessmen, remains chairman.

One field of special interest to Torii is the U.S. bottled-water market. Since 1985, Suntory has spent more than $200 million buying seven bottled-water companies. Its Suntory Water Group in Atlanta is the No. 4 company, with 5.2% of the $2.3 billion U.S. market, and it's scouting for more small companies. Nobutada "Gary" Saji, executive vice-president of the parent company, says his wish list includes the water division of California-based McKesson Corp., No. 2 in the business. Executives at Suntory Water Group, however, deny such plans.

Selling bottled water probably would have seemed comical to Suntory founder Shinjiro Torii. His business was booze. In 1899, he quit a steady sales job to import barrels of Spanish wine, siphon it into bottles, and wheelbarrow it to the pubs of Osaka. By 1923, he had blended Japan's first domestic whisky. After World War II, he avoided ruin by selling booze from a hidden cache to U.S. occupation forces. Torii's nagging refrain soon became codified as the company motto: "Why don't you try?" His successor, Saji, ended up being even more demanding, and his outbursts were legendary. "I hope Shin will take the good and forget the bad of my management style," says Chairman Saji with a grin.

FAST TRACK. Like the chairman, President Torii speaks fluent English. He earned a BA in business from Northwestern University in 1960 and an undergraduate law degree from Kobe University in 1963. As is typical in family-run companies in Japan, Saji sent him out of the business to get some discipline. He worked for three years at Sumitomo Bank, where Saji's father-in-law was president. Then, he took the fast track up a privileged ladder that included a stint as vice-president of Suntory International and a director's post by age 34.

Now, he lives a nomadic life as an Osaka-based executive. In Tokyo, Torii stays in the best hotels, carefully rotating among them because each is a customer. On weekends, he kicks back with his wife and daughter at their Osaka home "like an American family," he says. Their son is studying in Holland.

Torii and Gary Saji work closely together, and they often compete at golf or tennis. They make an odd couple. Saji is a colorful sort who tends to behave like his shoot-from-the-hip father, the chairman. Torii is more stiff and restrained. "Shin is very steady," says Saji. "I think we're a good combination." Torii is so cautious that he won't reveal his favorite Japanese baseball team, fearing people will suspect he wants to buy it. As usual, Saji is less circumspect:

WHERE SUNTORY SHINES IN THE U.S.

BOTTLING

Eight companies, including Kentwood Spring Water, Polar Water, and Pepsi bottler Pepcom Industries

WINE

Chateau St. Jean in Sonoma County, partial ownership of Firestone Vineyards in Santa Ynez Valley

RESTAURANTS

Japanese eateries, called Restaurant Suntory, in Boston, Chicago, and Honolulu

ENTERTAINMENT

Partnership with New York's Shubert Organization produces plays, such as *Jerome Robbins' Broadway*. Also owns Birmingham Barons baseball team

REAL ESTATE

Majority ownership of Princeville Resort in Kauai, Hawaii

DATA: SUNTORY INTERNATIONAL CORP

THE TORII FAMILY TREE

*CHANGED HIS NAME FROM TORII WHEN ADOPTED BY CHILDLESS RELATIVES – A JAPANESE TRADITION

DATA: BW

He states unequivocally that
will buy the first one up for gr
dreams of building a stadium a
turing a team to compete one d
Americans in a true World Serie

Last February, Suntory paid a
million for Alabama's Birmingha
ons, the Southern League AA fa
for the Chicago White Sox.
Kuehnert, a high-profile sports e
neur in Japan for 20 years and
college chum of Gary Saji's, r
team. Two Suntory employees
his elbow, enforcing strict finan
trols and long-term planning.
keep close track of us," says K
The team led its division for the
half of last season, and Kuenher
it'll turn a profit by next year.

THEATER BUFF. Baseball is only
of what Torii hopes will become a
ful leisure-and-entertainment em
May, the company bought a 51%
Hawaii's Princeville Resort on th
of Kauai. Suntory is also spendin
$1 million a year on Broadway
tions with the Shubert Organiza
has already shared four Tony
for hits such as *City of Angels*.

Not all of Suntory's overseas
have done so well. In 1987, it
break into Hollywood through
venture production company wi
ing house C. Itoh & Co. After a s
duds, including *Bright Lights, B*
Suntory has pulled the plug. The
ny could also use a few lessons
tivity. Last summer, it provoked
tion from disgusted foreign r
after modeling one of its Tok
halls on the 1936 Berlin Olympi
um, complete with a film of goo
ping Nazis saluting Hitler.
stopped showing the film and i
public apology.

Thankfully for Torii, the fall
evidence that Suntory may be im
its marketing efforts. Its Beer N
brand, launched in Japan in Octo
gimmick that has stumped skep
vals and analysts alike. Like Be
nouveau wine, Beer Nouveau
from this year's crop—hops and
flown in from abroad, which sup
freshens the taste. Suntory
sales of 3 million cases for it
month run but hit 2.3 million in
month. Now, it'll be an annual

A few more successes like t
Torii may reach his revenue goa
of schedule. He isn't the type
celebrating prematurely, thoug
still have tough times this yea
Torii. Yet if grandfather we
around, he'd be proud. Rain o
Shin Torii is willing to try.

By Karen Lowry Miller in Tok
Andrea Rothman in New York

Rubles, trade barriers and access

Some myths about marketing computer products in the Soviet Union are fading fast.

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To market, to market.

Based on the current short and long term plans, Soviet experts have estimated the demand for computers by the year 2000 to be 28 million units (*Pravda*, August 20, 1987). Everything from PC's to minis and mainframes are desperately needed. Clearly, the Soviets realize that economic restructuring will require advances in technology, and the lifting of COCOM trade restrictions has already helped many western companies begin to fill the vast need for computer products in Russia.

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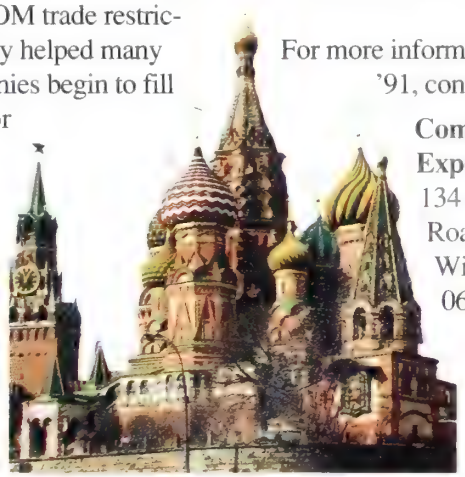

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UDS

MOTOROLA

Created by Daynerhall, Inc., Winter Park, Florida

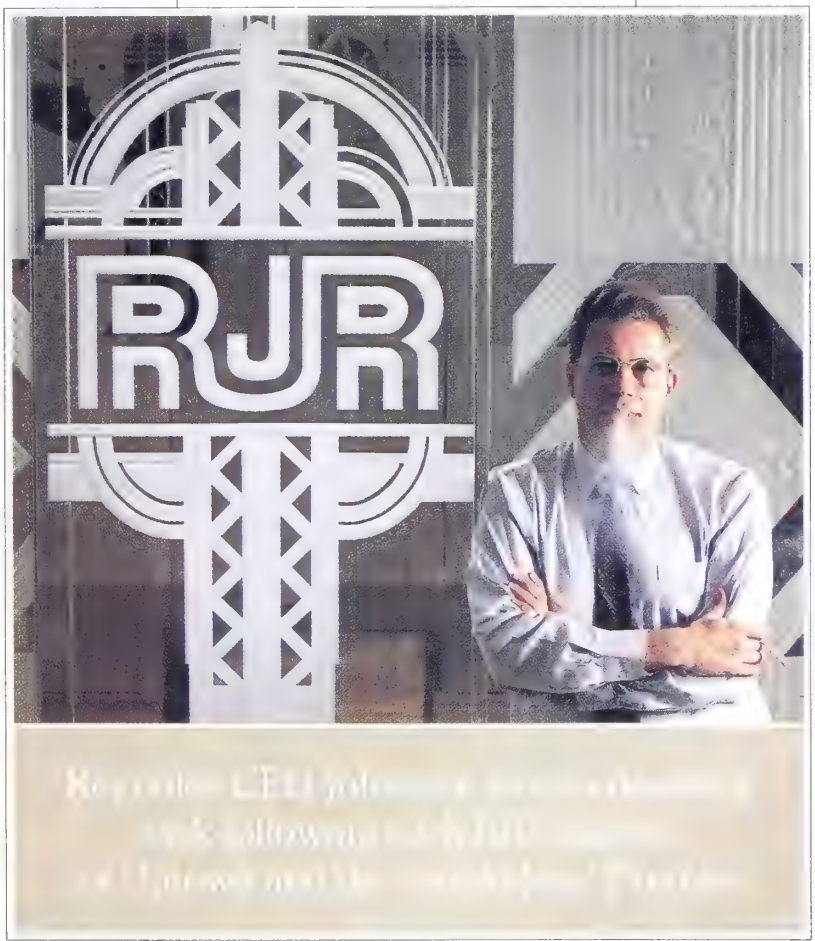
:YNOLDS DRAWS A BEAD N THE MARLBORO MAN

r a series of flops, the tobacco giant is focusing on core brands in a bid to regain the No. 1 spot

or once, R. J. Reynolds Tobacco Co. beat archrival Philip Morris Cos. to the punch. On Dec. 3, the No. 2 co marketer launched a nationwide t of its super-low-tar Camel Ultra s. Philip Morris, meanwhile, is still arketing its Marlboro Ultra Lights ee locations. Says Reynolds Tobac- ief Executive James W. Johnston: were so confident e product, we de- we couldn't wait." zing the nation the new Camel is an unusually nove for Reynolds. years of mostly marketing, Reyn- has slid from its as industry leader cond place, with 29% of the mar- according to ana- ohn C. Mxwell of t, First Securities That's far behind Morris' share of or so (chart, page ut Johnston, 44, is nined to close the He even hopes to up with Philip s by the end of 990s.

COW. The stakes articularly high for olds. After a $26 leveraged buyout year, Reynolds' it, RJR Nabisco s lumbering under ormous debt load. t is looking to the tobacco business, earned about 75% company's 1989 operating income .2 billion, to pay off much of the st and debt. The tobacco unit's record will also be important when erg Kravis Roberts & Co. and other investors price the company e it public again—probably in the 990s.

er his arrival at Reynolds' Win- Salem (N. C.) headquarters in June, 1989, Johnston quickly improved profits at the $5 billion U. S. operation. In its latest third quarter, operating income from tobacco rose 51%, to $683 million. Though impressive, the gains were relatively easy to achieve at the bloated company. He slashed $500 million in expenses, largely by laying off 1,600 employees and dumping excess inventories.



But cutting fat doesn't necessarily put on muscle. In a cigarette market that is shrinking by some 2.5% a year, about the only way to increase revenues is by wresting market share from someone else. To do that, Johnston has prepared a sweeping new marketing strategy. The primary objective: boost Reynolds' core brands—Winston, Salem, and Camel—in an all-out effort to win smokers from Philip Morris' best selling Marlboro. It's a daunting task. As Philip Morris USA President William I. Campbell puts it: "We're going in with the advantage, and it's our intention to maintain it."

The back-to-basics strategy sounds simple, but it represents a big change for Reynolds. In the past five years, the company spent plenty on ballyhooed-but-futile new products, such as the Premier smokeless cigarette. Reynolds also built up a lead in discount cigarettes, the only part of the business that's growing. The trouble is that low-priced smokes such as Reynolds' Doral and Magna cost about the same to make as premium cigarettes. They also need more marketing dollars these days to compete against other discount brands. That affects margins, and Johnston wants to boost profits.

BRAND LOYALTY. Another problem: With Reynolds focusing much of its energy on the discount end, Philip Morris faced less competitive pressure as Marlboro grabbed share in premium brands.

Johnston saw first hand how Reynolds lost the top spot. He worked there before going to Citibank in 1984. Johnston left after a clash with top brass over the company's now-discarded practice of boosting market share with extra shipments of inventory.

There's already evidence that Johnston is backing up his plans: Periodicals such as *TV Guide* report Reynolds will increase ad spending as much as 20% in 1991. But Johnston still faces a tough time luring more smokers to his premium brands. More smokers are opting for

low-priced brands, while consumers who decide to stick with high-priced cigarettes are notoriously loyal and slow to change. As for beginning smokers, Philip Morris has more success attracting them. In the reckoning of one ad-industry executive, a stunning 70% of new smokers start the habit by buying Marlboros. Reynolds' brands appeal most to smokers in their 40s and 50s—the age group most likely to quit.

Camel's recent success convinces Johnston he can win the share wars. About two years ago, Reynolds dumped its old picture of a real camel, coming up instead with a cartoon dromedary designed to appeal to younger smokers. Reynolds then poured on the money for advertising, promotions, and store displays. "Camel is half the size of Winston, but it's probably getting the same amount of sales-force and merchandising attention," says another advertising executive.

Media spending on Camel in the first quarter of this year accounted for 27.9% of Reynolds' total budget, compared with 17.5% during the same period in 1989, according to PaineWebber Inc. analyst Emanuel Goldman. Wheat First's Maxwell says that, in a generally declining market, share for Camel filters has risen from 2.9% in 1988 to an estimated 3.2%. Johnston says the gains are coming out of Marlboro's hide—an assertion Philip Morris denies.

Johnston has plans to turn around Winston and Salem, as well. For years, the marketers of Winston, Reynolds' No. 1 brand, tried to out-Marlboro Marlboro with he-man images. A new campaign ditches the me-too approach—which didn't keep Winston from slipping. Now, bald eagles figure in new ads that stress quality: Reynolds has upgraded Winston's filter and paper.

But RJR is also offering hefty discounts on Winston. Smokers can send in for five $2 coupons toward cartons of Winston. While price promotions are nothing new, this is an especially heavy blitz, and some tobacco executives wonder if it won't damage the brand's image as smokers get used to cheap Winstons. Johnston counters that the coupons provide an incentive to switch. "If we can just get people to see the changes we've made," he says, "we know we'll boost the share."

Johnston has another potential headache with Reynolds' second-largest brand, Salem. Most Salem smokers are suburban women in their 40s who like the brand's white filter tip and heavy menthol taste. But Reynolds research shows the biggest consumers of menthol cigarettes are black smokers, who usually favor Brown & Williamson Tobacco Corp.'s Kool and Lorillard Inc.'s port. Reynolds infuriated health of and minority leaders earlier this with its plans to target blacks Uptown brand. Now it is testin additions to the Salem line—Salem and Salem Box—that have the low els of menthol black smokers pre

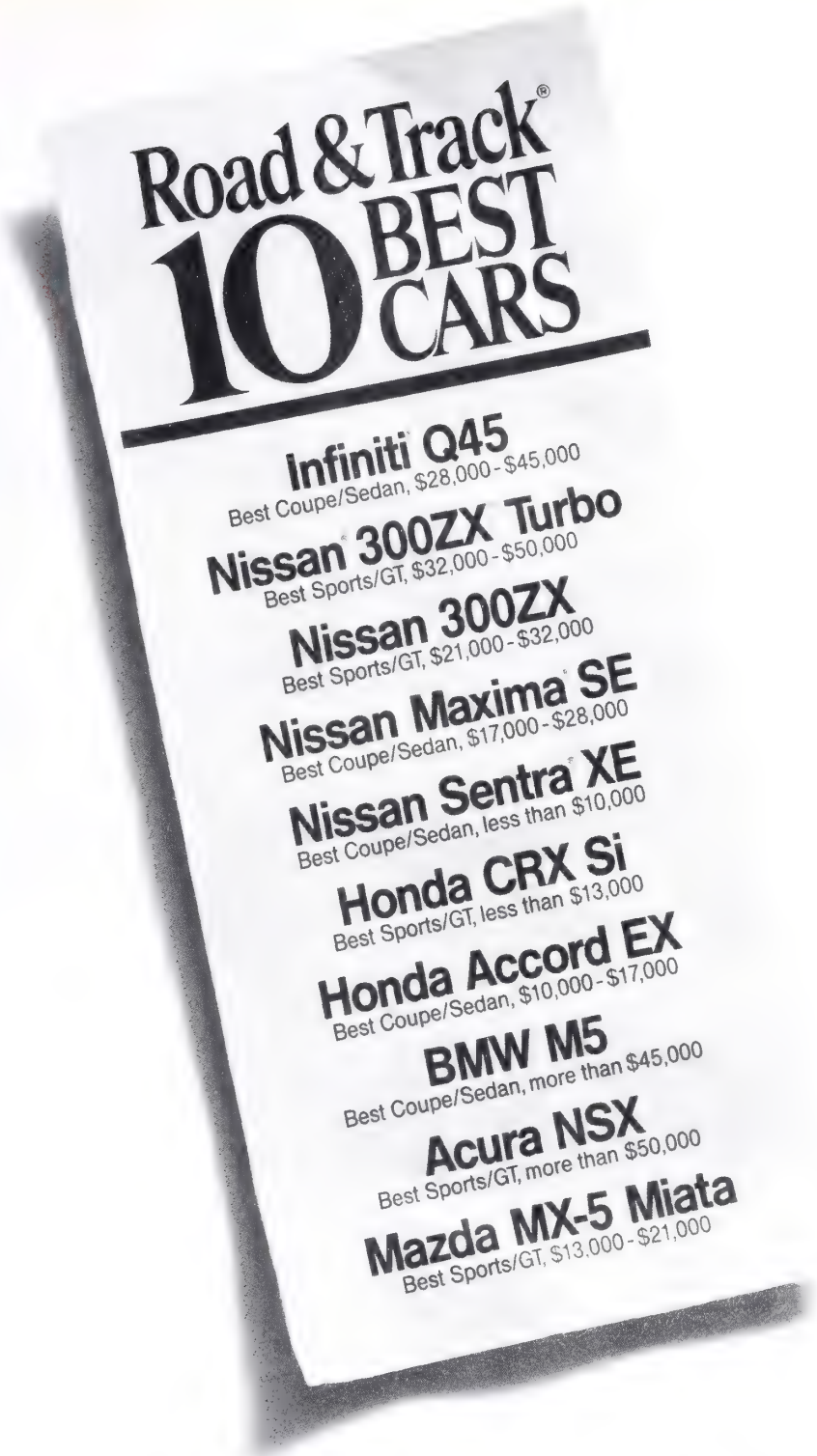
FIGHTING BACK. Another consumer ston wants to target is the socially tive smoker. Now being tested are zon, a cigarette whose smoke smel vanilla, and Vantage Excel, which less smoke. After the failure smokeless Pr gadget, which sumers rejecte cause it was to to get used to, ston is evalu test-market p mance carefull

In confronti tismoking sent though, RJR is ing a lot mo gressively. Su tivity is incre everywhere as municipalities passed legis banning or re ing smoking i lic places. Greensboro, N city near Rey headquarters, cently passed tismoking me Some areas banned vendin chines and are ing to license that sell cigare

In a step lik draw new a from the ant ing lobby, Jo has decided Reynolds should rai profile of its opposition to lim smoking. In this area, Reynolds ha en a back seat while Philip Morr doggedly sought to tie Bill of issues to its pro-smoking stance.

Now, Johnston has hired Thoma com, former chief of communicati the White House. Griscom will direct-mail effort that will teach sm how they can fight local antismoki tiatives. Says Johnston: "This is thing I wish we had done a decade What he and his rivals at Philip undoubtedly wish is that tobacc sumption would stop sliding. Then olds would have a much easier tim ting a bigger serving of profits.

By Walecia Konrad in Winston-N. C., with Mark Landler in New Y



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DANGEROUS DAYS FOR DICK DARMAN

At worst, conservatives will have his scalp. At best, he is in for a power struggle

From the day he was tapped as Budget Director, with orders to tame a menacing $150 billion deficit, Richard G. Darman charmed, bullied, schemed, and maneuvered with one goal in mind: the Big Fiscal Fix.

When his fertile mind ran free, Darman spun an appealing fantasy. He would broker a bipartisan budget accord that would break years of deficit gridlock. Then, while Washington marveled at the feat, he'd soar in pursuit of an even more audacious plan to retool America for the competitive rigors of the 21st century. Health care reform, a revamped education system, and bold space missions to Mars—all would be in his grasp as George Bush's domestic czar. As Darman might have quipped to his globe-trotting President: I've got the vision, if you've got the time.

Well, Dick Darman got his big budget deal. Before Congress adjourned, it approved legislation designed to slash $500 billion from the deficit over five years. But not much else has worked out according to plan. For one thing, that pesky deficit just keeps growing. According to the latest congressional estimates, the red ink will amount to an eye-popping $320 billion this fiscal year. That includes the costs of the savings and loan bailout but excludes both the $70 billion Social Security surplus and the huge expense of Operation Desert Shield.

DENTED ARMOR. Darman has emerged from two years of budget battles with his political armor dented and his reputation with conservatives in tatters. And when the budget deal is mentioned now, Bush looks like a man who has just nibbled a bit of bad lobster. He needn't be reminded that his party was singed by the issue in the November elections.

Right-wingers correctly blame man for engineering the abando of Bush's no-tax pledge, and the screaming for the budget chief's "The President was badly serve Darman," says Burton Yale Pine nior vice-president of The Her Foundation. "He's got to get rid of

Just in case he doesn't, conserv led by Housing & Urban Develop Secretary Jack F. Kemp and inc Republican National Committee man-elect William J. Bennett are heading a campaign to wrest cont the domestic agenda from the B Director. "We've had enough Socia manism," says Kemp, whom Pres Bush has just named to head a ne mestic policy task force.

Darman's last repository of po support seems to be the Demo cloakrooms on Capitol Hill. While

atives revile the budget chief's pragism, Democrats cheerfully describe as a man "we can do business ." In Washington, though, that's no pliment: It means the heavies think can outsmart you.

ith budget carnage everywhere, ulation about Darman's future is pant. Few Administration topsiders k President Bush will fire him. But y wonder whether the budget chief be content to spend the next two rs with his horizons limited. Says one ner high-ranking Administration offi- "Darman has no future."

MOTS. Darman, who admits to being ply scarred by the budget brawl, has brooding a lot about such questions ecent weeks. But to a lifelong policy die, Washington is addiction that might hard to kick. At 47, man has held posts our Administrations. addition to his love government service, as one of the surest vival instincts of any er player inside the tway. "I respond er under pressure. I just one of those sonalities," he in- s. "The people who n out are not meant this."

lthough Darman es enemies at the p of a sarcastic bon t, he picks his nds carefully. He worked hard to dep a close relationwith White House ef of Staff John H. unu. Darman's deder of last resort is retary of State nes A. Baker III, om he served at the Reagan Treasury l White House staff. In October, en some advisers urged Bush to ditch budget deal, Baker used his considble clout on Darman's behalf.

n addition, the nexus of power and icy at the Office of Management & dget means that Darman's agency is ajor player in every domestic debate. d with the just-concluded budget deal ing the OMB even more authority to force spending discipline, Darman will y at center stage. "If I can't define ngs to be interested in," said Darman an interview, "there's got to be someng wrong with me."

Still, there's no question that Darn's rivals are circling. The first postdget test of the OMB director's power: nasty internal fight over Bush's 1991 mestic agenda. Though Darman has been speaking out against a flirtation with "new, new" (meaning expensive) initiatives, Administration conservatives want the President to ignore the advice and embrace "empowerment" programs in January. In essence, the schemes would bypass the bureaucracy to provide direct cash benefits to the poor and the working class.

Right-wingers and libertarians view this approach as the precursor of a conservative war on poverty. White House policy aide and Kemp ally James P. Pinkerton, who is at the forefront of the fight, has grand visions of vouchers for housing, education, and a host of other poverty programs. But Darman, donning his green eyeshade, frets that these proposals could mushroom into costly commitments and exploding tax credits that would severely strain the budget. Another flash point may be capital gains. Kemp and his allies are demanding new tax cuts for investment, but they fear that Darman, always skeptical of the benefits of a capital-gains tax cut, will sandbag them.

For the budget chief, the fight isn't really about vouchers or taxes. It's about governing. Darman still thinks of himself as a rebel. But he believes fervently that the revolution must be made from within, by officials who value governance over rebellion. Darman thinks that firebrands such as House Minority Whip Newt Gingrich (R-Ga.) are more interested in dynamiting the old system. Gingrich does not dispute this view: "Either we have a welfare state or we replace it," he declares. "There's no room for compromises." But chances are that the President, in typical fashion, will try steering a course between Darman and the appeals of the empowerment crowd.

Darman can't be counted out, though. One reason is his uncanny ability to add new weapons to his bureaucratic arsenal. Case in point: the budget deal. The legislation divides federal spending into three categories—domestic, defense, and international—and sets a separate cap for each. Under the rules, if Congress wants to increase spending for a favored program, it must find offsetting savings in the same category. At the same time, the old Gramm-Rudman deficit targets recede into the background. If the scheme works, Darman can deflect public concern over the size of the deficit and try to reshape spending to suit programs more to his liking. For example, the Bush budget could propose eliminating some evergreen domestic spending programs, such as the Legal Services Corp., and using the money to fund basic research—a favorite Darman hobbyhorse.

SMALLER ROLE? The Democrats worry that Darman's convoluted enforcement mechanism will further hobble their power. But Darman insists that, at least from his vantage point, the new rules are liberating. Some independent analysts agree. Declares Price Waterhouse budget specialist Stanley E. Collender: "I think Darman would be just as happy defining the debate. It could give him a chance to put together a grand strategy that won't have to show results immediately."

Still, Darman must know these maneuvers will involve spending decisions at the margins—and that wary congressional leaders will try to block his every move on the power chessboard. Without the drama of the big budget wars to energize him, will he lose interest in these paltry zero-sum games?

For as long as he wants to stay on, "Darman is solid," maintains White House aide Edward M. Rogers, a key Sununu deputy. "He's here to stay." But if the deficit, Bush's go-slow agenda, and angry conservatives conspire to reduce Dick Darman's role to bean-counter, why would he want to?

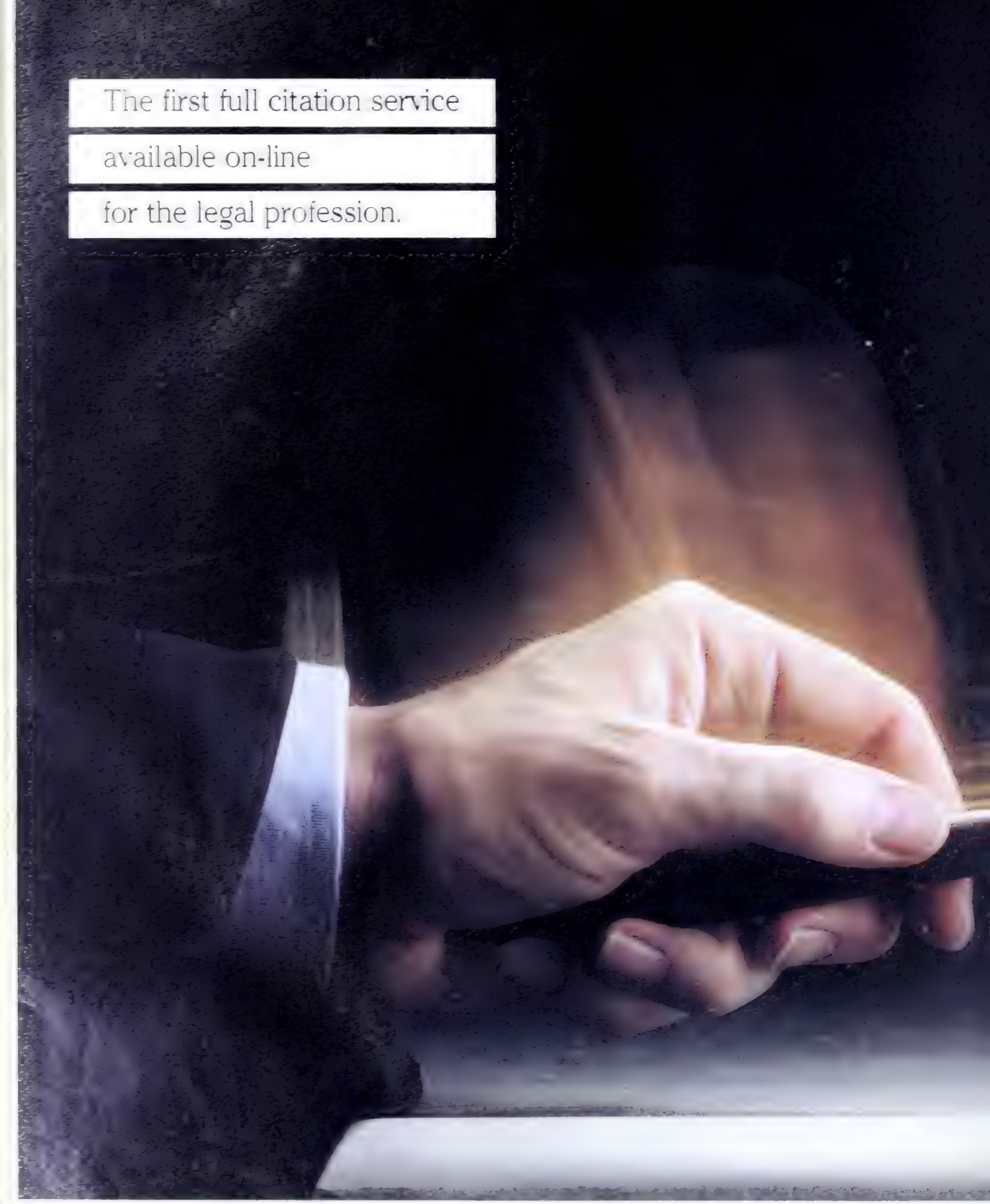
By Howard Gleckman, with Paula Dwyer and Douglas Harbrecht, in Washington

HOW RICHARD DARMAN STILL EXERCISES POWER

AS BUDGETMEISTER New budget rules require that added spending be financed by cuts in similar programs. The old Gramm-Rudman targets are less important now, and Darman will have more flexibility to try to shift resources among programs. He also has more say in determining program costs, although House Democrats are moving to take that power away.

AS POLICY JOCKEY Darman has new clout in management decisions at all federal departments and agencies. He can bottle up proposed regulations, review speeches and congressional testimony, and oversee financial management decisions throughout the bureaucracy.

AS SAVVY SURVIVOR Darman may not win any popularity contests, but he retains an ability to outwork and outthink many of his rivals. Darman's tenacity in getting the deal done is matched by few in Washington. Despite having a long list of White House rivals, he retains the support of Chief of Staff Sununu and President Bush.



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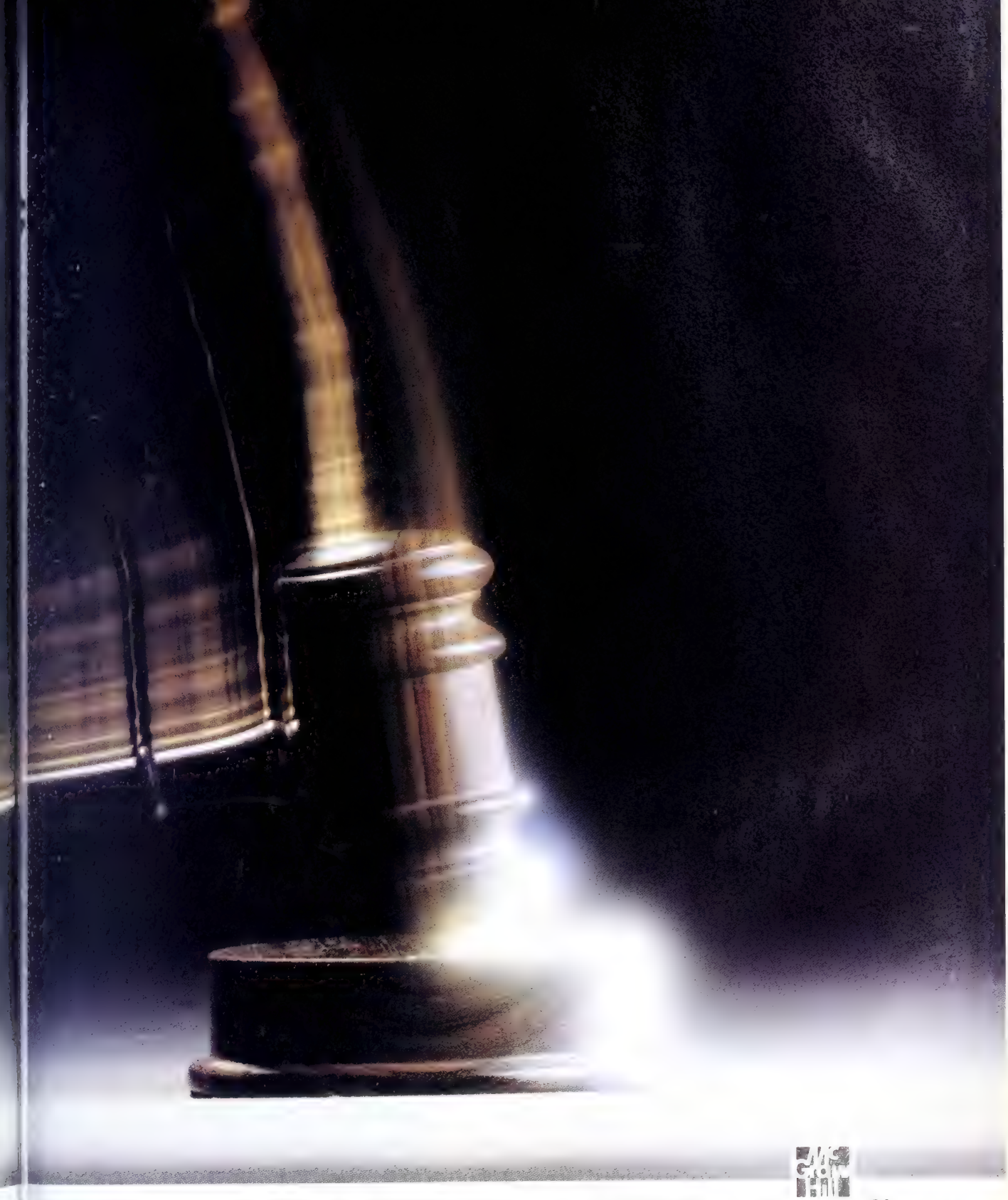

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BEHIND THE FALL OF LAVENTHOL

The firm's fate was sealed before the meeting in Houston

It was a fitting farewell. The Sunday after the top partners of Laventhol & Horwath had voted to break up their 75-year-old firm, Chief Executive Robert N. Levine was in the corner of a crowded ballroom at the Houston Airport Marriott when his 350 partners rose to offer a standing ovation for his ill-fated yearlong turnaround effort. But he couldn't respond with words of thanks. Like so much else about the firm, his microphone failed him.

Eventually, Levine walked to another mike and got his message across. But there was nothing he could do to stop Laventhol from filing for bankruptcy three days later, on Nov. 21. Slipshod client screening and a tidal wave of malpractice suits had helped seal L&H's fate long before the partnership turned to Levine in November, 1989, for a rescue. Nor could Levine single-handedly revive the once-lucrative tax-shelter business, killed off by tax reform, or resuscitate the real estate and leveraged-buyout booms of the 1980s that had fueled dizzying growth at the nation's seventh-largest accounting firm.

CASH HITS. L&H's cash squeeze, Levine says, resulted from high litigation defense costs, a dramatic downturn in key industries, and the softening of the general economy. Other factors that now plague national accounting firms also played a part: cutthroat competition that leads to underbidding of audits, a shrinking client pool, and an overdependence on distressed industries. Thus, days after Laventhol became the largest professional-services firm to collapse into Chapter 11, a smaller rival, Spicer & Oppenheim, disbanded. The firm had never recovered from the 1987 crash that crushed its Wall Street client base. Giants KPMG Peat Marwick and Deloitte & Touche are cutting staff.

Above all, the industry suffers from the ravages of a five-year epidemic of malpractice suits. Creditors and investors in failed companies like to sue auditors because those firms are often the only participants left with any cash. This is the growing use of antiracketeering laws against professionals, has inflicted huge litigation expenses, even when the firms eventually win the cases.

Now, savings and loan failures are fueling more suits and boosting the potential liability. Ernst & Young has just had to mount a public-relations blitz to reassure clients of its solvency. Rumors of an impending bankruptcy had been swirling, partly because of the $560 million suit filed by the Federal Deposit Insurance Corp. over E&Y's audits of a Dallas thrift. "I fear for the profession," says Levine.

MERGER BINGE. Nonetheless, Laventhol's tale is unique because of its excesses. Hot to compete with the Big Six, the scrappy second-tier firm went on a merger binge. Starting in 1984, L&H added 65 smaller practices, which helped double revenues, to $345.2 million, by fiscal 1990. At its peak, L&H had over 50 offices and 460 partners.

But the lack of a distinct culture—a code of values and practices that knit together other far-flung firms—often left some L&H partners placing profit above other concerns. The management by numbers ultimately killed morale, says Ronald A. Gunn, a former principal in L&H's Washington office. After Laventhol expanded its D. C. presence by buying a local rival, he says, it boosted rates so high that partners "spent more time apologizing about what was happening than serving the clients."

The drive for growth brought on heavy pressures. And, concedes Jeffrey L. Lefcourt, chairman of L&H's policy-setting national council: "We ma
have looked as carefully at the
we were doing business with a
should have." This resulted in a
roster that often looked like a r
gallery. It included jailed San
swindler J. David Dominelli, and Bl
Robinson & Co., the defunct Denve
ny-stock firm repeatedly attacke

regulators for defrauding inve
Best known is defrocked TV evan
Jim Bakker, whose PTL spawned a
million fraud claim against L&H ar
far larger Deloitte & Touche. Only
bankruptcy filing spared it from th
of a judgment now. But the claim c
refiled in bankruptcy court.

In the end, L&H's legacy is an
lesson on how a business can go

ning in 1988, litigation expenses ettlements sharply cut into earn- table). By this year, the profit de- twice forced the firm to curtail ily partnership draws, which had ged $7,500 per partner. By March, L&H had borrowed $85 million for ting costs, the banks said: No Now, L&H faces claims of $2 bil- say its bankruptcy papers.

DARKEST DAY.' The final chapter in destruction began with the woes abill Corp., the Chicago manufac- and real estate empire built by e dropout William J. Stoecker. In te 1980s, audits by L&H's Chicago of Grabill's financial statements review of Stoecker's finances per- d banks to lend millions. But by 1989, Grabill was in Chapter 11, toecker was soon indicted for bank- y fraud.

ecker was found innocent. His law- Thomas A. Durkin, argues that audits were designed to ease the concerns about the complex Gra- fidence. And the U. S. Bankruptcy Trustee continues to search for some $30 million in cash and $70 million in real estate missing from Grabill, although it's listed in L&H-audited financial statements.

Grabill marked "the darkest day in the history of our firm," Levine says. The affair tossed L&H's leadership into upheaval. Kenneth Solomon, the hard-charging head of the Chicago office who had overseen the Grabill work, was national-council chairman and heir apparent to CEO George L. Bernstein, whose 10-year tenure ended in June. Instead, desperate to shake off Grabill, the L&H partners tapped the mild-mannered Levine, a popular national-council member who ran the San Francisco office. And when Solomon quit as council chairman, they chose Lefcourt, a Miami partner. Solomon refused to comment.

The tumult in the executive suite compounded L&H's other management woes. Gunn of the Washington office says it never was clear who was in charge—the relatively independent branches, the with clients' finances. Some claim they missed fraudulent activity, a charge L&H disputes and its defenders say is easier to lodge in hindsight. But L&H's fundamental flaw was a lust for growth at all costs. Only belatedly did L&H try to stop its downward spiral. Early this year, Levine moved to tighten client screening. But as he struggled to improve operations, he was overwhelmed by business pressures beyond his control.

Fleeing partners and staff made the turnaround tougher still. Earnings slipped so badly that L&H boosted its borrowings from First Fidelity, Chase Manhattan Bank, and State Street Bank—until they cut off credit. With legal bills between $700,000 and $1 million a month, says Levine, L&H cut partner payouts by 80% and salaries by 10%.

Despite warning signs, few partners heading for the Houston meeting suspected—or sought—what occurred. Rather, Douglas McGregor, a Boston partner, says management had come up with what it viewed as a viable plan to raise cash. It proposed selling off its consulting practices to partners, plus selling or closing some offices. But when the idea was presented to lenders before the weekend, they rejected it.

COST OF CARELESSNESS. On Friday, the national council met for 12 hours in Houston. When Levine met with all his partners the next day, he offered a last-ditch rescue option, calling for each partner to contribute $50,000 to tide the firm over until big first-quarter billings came in. Levine said it could work, but even he couldn't recommend it. By late Saturday, the sentiment for liquidation was nearly unanimous.

For L&H partners, the firm's fall hardly puts an end to their litigation woes. It just transfers them to another arena: Manhattan bankruptcy court. Under partnership law, individual partners, including retirees, are personally liable for all debts incurred during their stay at the firm. Already, many partners have hired lawyers in anticipation of fighting claims by creditors—and by partners.

L&H's demise also offers some hard lessons for the industry. Failing to check out clients and business partners, for one, can be costly. "If you lie down with dogs, you get up with fleas," says one accounting executive. And it presents a tough challenge for policymakers. Arthur Andersen Chief Executive Lawrence A. Weinbach says bluntly: "The liability system for professionals needs to be rethought." And one more thing is clear: With L&H as a fresh case study in disaster, the profession could use a bit of scrutiny.

By Joseph Weber in Philadelphia, with Michele Galen in New York, Catherine Yang in Washington, and David Greising in Chicago

MILEPOSTS ON THE ROAD TO RUIN

[illegible]
first big account- ind liable for civil g, for audits of a that duped inves- $20 million. The ettles for $15

JANUARY, 1989
Chicago-based Grabill Corp. defaults on loans despite recent "unqualified" opinions by L&H. By the fall, L&H concedes some mistakes and agrees to pay $40 million to banks. Insurance covers all but $11.5 million

NOVEMBER, 1989
Robert Levine, a lawyer, CPA, and L&H managing partner in San Francisco, is elected to succeed 10-year CEO George Bernstein. The appointment underscores the firm's desire to put Grabill behind it

[illegible], 1989
federal jury slaps a $75 million judg- s tax and audit fraudulent oil and lter. L&H settles illion

MARCH, 1990
First Fidelity, Chase Manhattan, and State Street refuse to boost L&H's $85 million credit line. The move forces L&H to downsize and tap earnings for operating costs

APRIL, 1990
Three months before officially taking office, Levine moves to cut costs and beef up quality control. By late summer, he orders a bankruptcy contingency plan

[illegible], 1990
s in a malpractice investors. They $184 million from thers for allegedly evangelist Jim about PTL's sol- H slashes payouts by 80% and sala- ployees by 10%

NOV. 12, 1990
At a Houston meeting, the 350 partners reject a last-ditch emergency recapitalization plan, requiring $50,000 from each partner, and instead agree to liquidate. The decision comes as a surprise

NOV. 21, 1990
L&H files for Chapter 11 protection in New York. The partnership closes its 50 offices and fires 3,000 staffers. Some local practices reopen as independent operations

DATA: BW, LAVENTHOL & HORWATH

rporate structure and the risk that ker might be double-pledging as- as collateral. "They were pushing y on him. He knew he was getting rouble, but [the banks] didn't want ar anything about it," he asserts. venthol admitted some procedural kes with its Grabill audits and qui- paid the banks $40 million. And, the city over the case shook public con- weak national council, or the executive office in Philadelphia. The uncertainty, he adds, "brought out the worst in people: fiefdomism, lack of cooperation, and avarice on the part of some." Responds Bernstein: "That is nonsense."

Laventhol's problems may have gone deeper. Much of the litigation, which now totals more than 100 suits, alleges that L&H audits failed to spot problems

WOMEN'S GOLF

LEARNING THE GAME: SWINGING A CLUB CAN OFTEN BE EASIER THAN JOINING ONE

IS SEX DISCRIMINATION STILL PAR FOR THE COURSE?

Golf isn't changing fast enough for some ambitious businesswomen

For [illegible] president of a Boston-based executive outplacement firm, begged off when clients suggested a game of golf. But last March, she finally decided to learn how to play, figuring "it would increase my business." Now, Robsham, [illegible] installed a putting green in her office and whittled her handicap down to a respectable 20. Best of all, golf "has paid off in spades" in her business, opening the door at three companies "I couldn't get into in any other way."

Robsham is hardly alone. Although only 22% of all U.S. golfers are women, the Ladies Professional Golf Assn. reports they accounted for a record 40% of the 2 million Americans who took up the game last year. In the past five years, the number of women golfers has mushroomed 35%, to 5.4 million (chart). Two-thirds of those women are employed. "They're finding that you build relationships on the golf course," says Kerry Graham, president of the LPGA's Teaching Div. "That gives you a real edge" in sales goals and winning promotions.

But closing that big deal on the 18th hole requires getting onto the first tee. [illegible] businesswomen find themselves [illegible] the golf course is almost as difficult as breaking through the fabled glass ceiling.

Golf's sex bias takes many forms. A recent *Golf Digest* survey found that fewer than 1% of the nation's clubs bar women entirely. But among the ones that do are some prestigious names: Pine Valley Golf Club in Pine Valley, N.J., and Washington's Burning Tree. Generally, clubs that bar women defend their policies on the ground that their members have the right to associate with whom they please.

Less overt discrimination is far more common. Trish Watson, advertising director at Nynex Corp., was told by several top-flight New York-area clubs that since she was married, her application would have to be filed in her husband's name. And many clubs still bar women from teeing off on Saturday and Sunday mornings. "That is terribly unfair to businesswomen," says Barbara Karmel, president of Reed Co., a Port[illegible] management-consulting [illegible] Karmel found only one club in Po[illegible] without such restrictions.

Clubs are now coming under i[illegible] pressure to change. More states a[illegible] ies are passing laws prohibiting su[illegible] crimination, and several lawsuits [illegible] been filed. One of the most notab[illegible] tories came earlier this year in [illegible] filed by Jan Bradshaw, an interi[illegible] sued against the Yorba Linda C[illegible] Club in Orange County, Calif. [illegible] though she had purchased a full-[illegible] membership at the club, Bradshaw [illegible] not allowed to tee off before 11 a.[illegible] Saturdays and 1 p.m. on Sundays. [illegible] severely limited my ability to play," Bradshaw. She was also barred [illegible] voting for officers.

Bradshaw had Yorba Linda o[illegible] barrel. Under antidiscrimination [illegible] members of clubs with exclusionar[illegible] cies can't write off club expens[illegible] business deductions. So Yorba [illegible] agreed to change its policies.

RITE OF PASSAGE. As [illegible] our[illegible] women enter golf and corporate [illegible] [illegible] to fall especially as [illegible] [illegible] to the advantages of h[illegible] their women executives out o[illegible] course. "About half our sales fo[illegible] female, but only a small portion [illegible] golf," says William O'Donnell, a re[illegible] Xerox manager for major-account [illegible] keting. Xerox Corp. is working wit[illegible] mer LPGA star Jane Blalock to e[illegible] age its female employees to play. [illegible] and Mazda Motors of America are [illegible] ning golf clinics for women man[illegible] At New England Telephone & Tele[illegible] Co., women managers have begun [illegible] ing a company tournament. And a[illegible] Jacobs' Practical Golf Schools, a n[illegible] wide chain, the percentage of w[illegible] students has more than doubled [illegible] years. It's now forming schools for [illegible] utive and professional women.

Golf's exclusionary policies are [illegible] the only reason women haven't r[illegible] up faster in the corporate world. [illegible] up-and-comers a[illegible] [illegible] to [illegible] in the rituals of [illegible] [illegible] golf like [illegible] one of them. S[illegible] good round of [illegible] isn't going to wi[illegible] one a top job. B[illegible] things being eq[illegible] woman who can [illegible] a club has a [illegible] chance of succes[illegible] one who stays o[illegible] sidelines.

By William [illegible] monds in Palm [illegible]

IT'S THE WAY WE PUT THEM TOGETHER THAT SETS US APART.

At Motorola, we believe a cellular phone not only should work the first time out of the box, but we feel it should also be working years down the road.

And after we build them, we make it our business to ensure they're built right.

We put our phones through one of the most rigorous testing programs in the industry, exposing them to everything from temperature extremes to assorted shock and drop tests.

And this painstaking attention to quality pays off. Over the years the quality built into our phones has won over more than customers. It's also won some very prestigious awards. In 1988, Motorola received the first Malcolm Baldrige award, given by the President of the U.S. to recognize the quality of Motorola's equipment and services. And this year, Motorola received Japan's 1989 Nikkei award for creative excellence in products and services.

The fact is, when it comes to quality and durability, our phones don't just stand out.

They stand alone.

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THE NEW FACE OF RECESSION

FALLOUT FROM THE FINANCIAL EXCESSES OF THE '80s COLORS THIS DOWNTUR

So this is what it looks like. Companies are slashing payrolls. Incomes are falling. People aren't spending. Houses aren't selling. There's no doubt about it. The recession is here.

All recessions have telltale signs of pain, and this one is no exception. But, appropriately enough for the first nationwide contraction of economic activity in eight years, it's already shaping up as different from the norm. It didn't even start in a typical fashion. No bottlenecks or capacity constraints preceded this downturn. Wages and prices didn't surge, forcing the Federal Reserve Board to clamp down with higher interest rates. There was no big inventory buildup. "Manufacturers," says Donald Ratajczak, director of economic forecasting at Georgia State University, "have been right on top of their order books."

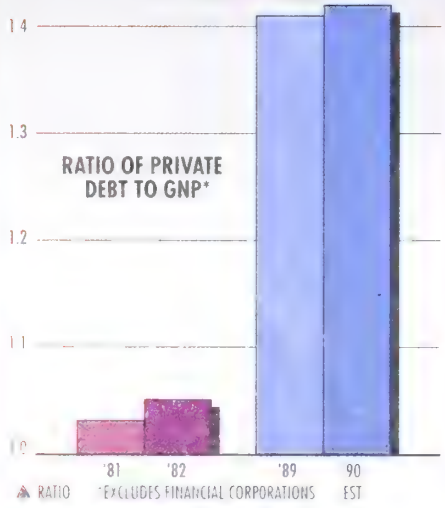
Instead, the new face of recession is shaping up as the logical outgrowth of some long-term trends of the 1980s. Just as in previous recessions, excesses are being unwound. But they are different excesses. This time around, once-inflated commercial and residential property values are already in retreat. This time around, the banking system has been under severe earnings and regulatory pressure. This time around, debt burdens in the U. S. economy are far higher. "The recession appears to be a financially induced recession," says Irwin Kellner, chief economist at Manufacturers Hanover Trust Co. The effect of these financial factors has been to put a damper on spending, and some believe that they will continue to be a drag on growth. Says economist John E. Silvia of Kemper Financial Services Inc.: "Real economic activity will bounce along the bottom for a longer period of time than most people are expecting."

The economy was prepared for
by the middle of 1990, thanks t
Fed's two-year-old policy of tryi
slow growth to a "soft landing." G
indeed eased down to a mere 1.2%
al rate in the 18 months since the s
of 1989. But the central bank did
low for Saddam Hussein and a
rise in oil prices, which turned co
ers' gloom into panic and launc
full-fledged economic rout. Busine
ecutives, already aware that slu
growth was the best they could e
moved decisively to lay off worke
fore the economy fell much furthe

STINGIER SEVERANCE. It's that pr
tive strike by employers that has
anteed a sharp contraction in the cu
quarter. "We're seeing a much
rapid and prompt adjustment by
ness to both the threat and the rea
adversity in the economy," says St
S. Roach, senior economist at M

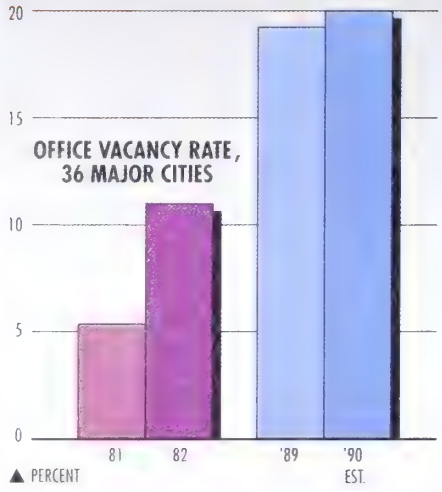
WHY THIS RECESS

DEBT IS A LOT HIGHER...



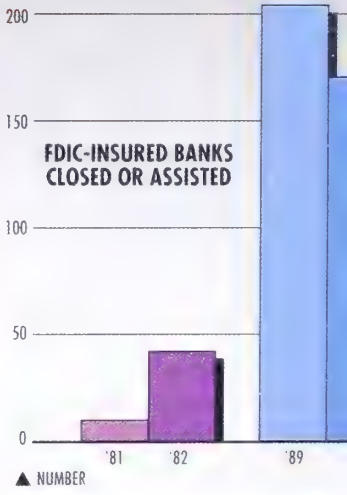
DATA: FEDERAL RESERVE, BW

...REAL ESTATE IS MUCH WEAKER...



DATA: OFFICE NETWORK INC., BW

...BANKS ARE BEI HIT HARDER.



DATA: FEDERAL DEPOSIT INSURANCE CORP

ey & Co. "Businesses that used to luctant to lay off people are now ıg with extraordinary speed." And g outplacement firm Drake Beam Inc. in New York reports that anies are getting stingier with sev- e packages, offering departing ex- es an average of 6.7 months' pay mpensation, compared with the 7.1 ıs' pay of a year earlier.

o new is that this recession is hit- people who traditionally have been ered from the chilling effects of mic downdrafts. In past recessions, gers and professionals who lost jobs could find new ones, even in orst of times. From January, 1980, vember, 1982, the economy lost 3 n blue-collar jobs. But companies still willing to add 2.8 million high- ined managers, professionals, and ical workers.

v companies are hiring. The boom ancial and business services, which d protect white-collar workers from ast recession, is over (chart). And ontinuing bombardment of layoff ncements is putting many more gers and professionals at risk. Manhattan is cutting 5,000 em- es, Citicorp is letting at least 2,000 nd Security Pacific has announced to shrink its overseas banking op- ns, a move which could also cost n the U. S. Things could get worse, many companies won't make their f plans public until after the holi- are over.

t as the November employment make clear, the pain is already and the victims are everywhere: Cuts came virtually across the board, in nearly all industries and all types of jobs. The number of unemployed blue-collar workers jumped by 375,000 in November, reflecting big cutbacks in autos, other durable goods, and construction. In November, the unemployment rate climbed to a three-year high of 5.9% nationwide. But economists figure that if discouraged workers who have dropped out of the work force were counted, unemployment would be closer to 6.5%.

MOST ECONOMISTS EXPECT THE DOWNTURN TO BE OF AVERAGE SIZE AND LENGTH. THAT MEANS A YEAR-LONG SLUMP AND A CONTRACTION OF 2.5%

SAD NEWS. Based on the gloomy employment data, economists expect incomes, on an after-inflation basis, to contract at a 4% to 5% annual rate this quarter. That kind of drop is bound to make people cut way back on spending in stores and malls, and even a last-minute Christmas rush won't spare the economy. The experts figure real gross national product could shrink at a 2% to 3% rate in the current quarter. "It looks to me like this economy is in a free-fall," says Richard B. Hoey, chief economist at Barclays de Zoete Wedd Inc. For now, most economists are expecting the downturn to be of about average size and length, that is, for the economy to move from peak to trough in just under a year and contract by about 2.5%.

But it could be longer and deeper. The outcome depends on many things, of course. If there's sign of a peaceful resolution in the Mideast, that could make a big difference (page 64). How strong growth is overseas will also affect the U. S. economy, because the optimists who are hoping for a mild recession are banking on U. S. exports remaining strong. But Britain, Canada, Australia, and New Zealand, which have a combined gross national product greater than Japan's, are all in recession now. Interest rates are falling in those countries, and recovery appears months away. Meanwhile, the two giants after the U. S., Japan and Germany, show no signs of recession.

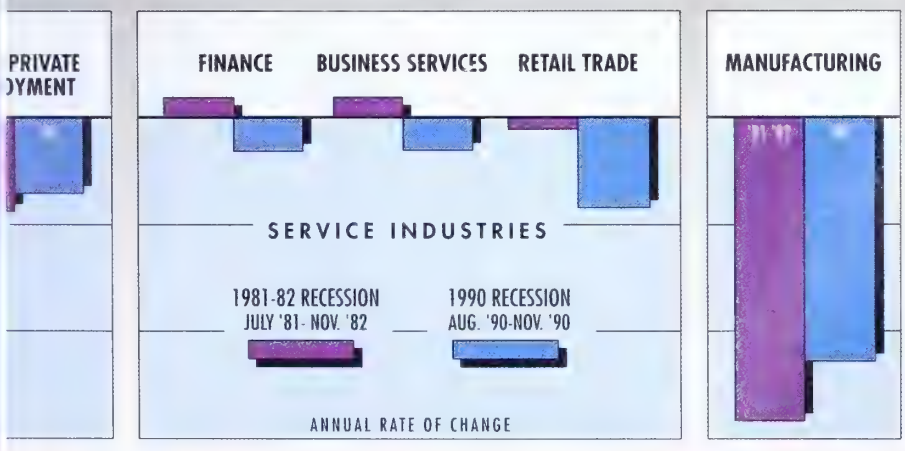
Determined inflation-fighting in both countries is slowing growth down, however. In Japan, the central bank has pushed rates to their highest level in eight years. Bankruptcies are rising, stock prices are off 38% this year, and car sales, housing starts, and property values are slipping. Between the second and third quarters, growth in Japan's GNP fell from an annual rate of 5.5% to 4.1%, and it could skid to zero by the second quarter of 1991, predict analysts at Salomon Brothers Inc.

Germany, even with the economic drag from reunification, will continue to grow, but at a slower rate of about 2% next year. Taken alone, though, West German growth should amount to nearly 3%, down from a strong 4.5% this year. Other Continental countries will not be nearly as robust as Germany. Slowing growth in Europe means that one of the U. S. export industry's strongest markets will lose some of its pep. And trade volumes may also be affected by how governments respond to the recent breakdown of the General Agreement on Tariffs & Trade talks (page 65). But how the recession unfolds will depend above all on how adroitly people and businesses unwind the excesses of the 1980s.

BURST BUBBLE. For many businesses, homeowners, and lenders, rising property values were a sure thing for most of the 1980s, and debt fueled the speculative boom. No longer. Over the past couple of years, people have been learning the hard truth, and as their assumptions have been dashed, they have ad-

IFFERENT

...AND EMPLOYMENT IS FALLING IN THE SERVICE INDUSTRIES



DATA: BUREAU OF LABOR STATISTICS, BW

UNEMPLOYMENT

JOBLESSNESS HIT A THREE-YEAR HIGH OF 5.9% IN NOVEMBER, AND A BARRAGE OF LAYOFF ANNOUNCEMENTS HAS MANY MANAGERS AND PROFESSIONALS AT RISK

justed their borrowing, spending, and lending patterns downward. It's common for a downturn in real estate prices to accompany a recession, but less common for one to play a role in inducing recession. "Our problems are on the asset side, not the goods side, of the economy," says Jerry L. Jordan, chief economist of First Interstate Bancorp. Compounding the adjustment process is the fact that the U. S. was not alone in enjoying a property boom in the 1980s.

Today, the U. S. has about a 10-year supply of office space, according to David G. Shulman of Salomon Brothers. Vacancy rates in 36 major cities will average 20% this year, up from 19.3% last year, and well above the levels of the last recession (chart, page 58). In downtown Los Angeles, vacancy rates are now at 16% but are expected to reach 25% by 1992, when a lot of new space will come on the market. In Chicago, a major building boom only cooled off early this year. The city's vacancy rate of more than 17% in the third quarter is the highest in more than 20 years. And in New England, commercial real estate is dead in the water, with developers unable to raise any money. Even the developer holding city approval to build a new Boston Garden has been brought up short because he can't get financing—despite a 10-to-12-year-long waiting list of Celtics fans ready to buy season tickets.

RISING DEFAULTS. With office space so ample around the country, it's hardly surprising that developers are beginning to default—and that lenders are feeling the pain. First Chicago Corp.'s net charge-offs in the first nine months of this year were $64 million, compared with only $4 million in the same period a year ago. For the 35 banking companies that Salomon tracks, problem real estate assets rose from an already elevated 9.1% of total real estate loans in September, 1989, to 11.5% in June, 1990. Now, as the economy weakens, these numbers will worsen.

PEOPLE SEE THE VALUE OF THEIR HOMES FALLING, AND THAT ASSET DEFLATION MAY BE HAVING A SUBTLE BUT POWERFUL EFFECT ON SPENDING

Homeowners, too, are seeing the folly of viewing a house as an investment rather than as shelter. Although certain regional markets, such as the Northwest, have remained relatively healthy, home prices are tak drubbing in the Northeast and C nia. Some markets have soured so that buyers who made their purcha headier times are indignant and se relief. A year and a half ago, b paid $500,000 to $600,000 to sn homes at Ranch View Estates in sand Oaks, Calif. But the develop out of money, unsold homes wer unfinished, some were vandalized roads and landscaping were not co ed. "The place looks like hell," say Wesely, one 1989 buyer. Results recent auction were not accepted developer's lender—no bid exc $410,000—and now, the homeo have filed a complaint against the opers with the California Real Dept.

Few situations are quite as extre depressing to existing homeowner tionwide, prices are barely lir along, rising 1.8% in nominal term a year ago. But many markets are ing. In Bergen County, N. J., pric off 9.8% from a year ago. In B 4.0%. In Des Moines, houses fetch less than a year ago. In Los An prices are off 4.7%, and in the San cisco Bay Area prices have slipped But some economists believe these lations from the National Associat Realtors are understated.

People see the value of their

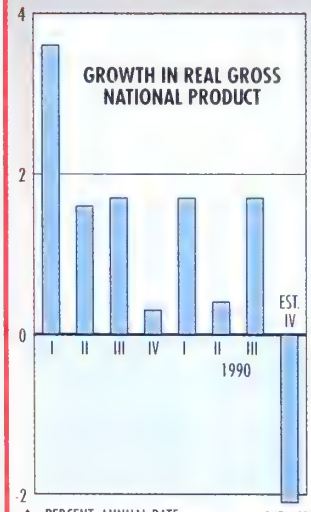
REAL ESTATE WHEN THE DEVELOPER OF THESE $600,000 HOMES IN THOUSAND OAKS, CALIF., RAN OUT OF MONEY, THE UNSOLD HOMES WERE LEFT UNFINISHED AND ROADS WERE NOT COMPLETED

ng, and that asset deflation may be ng a subtle but powerful effect on ıding. Barclays de Zoete Wedd's y believes there is a "psychic liquid- effect," whereby individuals may be htened not only by declining or slow- home prices but by finding that a highly liquid asset has become illi- l. The Nobel prize winner Franco ligliani once calculated a "wealth ect," whereby a nge in consumer lth, as opposed to me, of $1 would r consumption by o 6¢. A wealth ef- was widely ex- ed to have cut into ıding in the wake the stock market sh of 1987, but it ıed out that since about 20% of the ulation held stock ctly and the mar- was only retracing year's worth of ns, consumption t on growing.

lomes, however, the major asset the middle class. out 62% of U. S. seholds own their ellings, so declining home prices are more likely to have an impact on spending than a drop in stock prices did. People might become more concerned about their mortgage burden and whether they will be able to build equity in the home as they expected, says F. Thomas Juster, a University of Michigan economist. Already, the burden is high: Total mortgage debt owed as a percentage of disposable income amounted to 66% in the third quarter of 1990. That compares with a high of 48% in the depths of the last recession. As incomes decline, that ratio worsens. And if the value of the collateral backing up the loan is falling, that means, of course, that the homeowner's equity is shrinking. Ominously, household net worth is falling in real terms: As of the third quarter of 1990, it amounted to $12.64 trillion in 1982 dollars, down from $12.91 trillion a year earlier.

BAD LOANS. For the banking industry, coping with asset deflation is a painful process. In the 1990s, the nation's banking system must shed or work out billions of dollars in soured loans. After watching their core business of lending to prime corporate customers dwindle for decades, banks have chased a series of risky businesses—loans to Third World nations in the 1970s, leveraged buyouts and commercial real estate developers throughout the

THE GOOD TIMES ARE OVER... ...AND THINGS COULD GET WORSE



	THE 1990 RECESSION SO FAR	AVERAGE FOR ALL POSTWAR RECESSIONS*
LENGTH Months	?	11
GNP Percent change	-0.5% Fourth-quarter, not annualized	-2.6%
INDUSTRIAL PRODUCTION Percent change	-1.8% Since September	-8.8%
UNEMPLOYMENT RATE Percentage points	+0.7 Since June	+2.9

DATA: COMMERCE DEPT., BW, BOSTON CO., DRI/McGRAW-HILL

*PEAK-TO-TROUGH

RETAILING

A BIG DROP IN INCOMES IS MAKING PEOPLE CUT WAY BACK ON SPENDING. AND EVEN IF DEEP DISCOUNTS IN THE STORES FUEL A LAST-MINUTE CHRISTMAS RUSH, IT WON'T BE ENOUGH TO MATTER

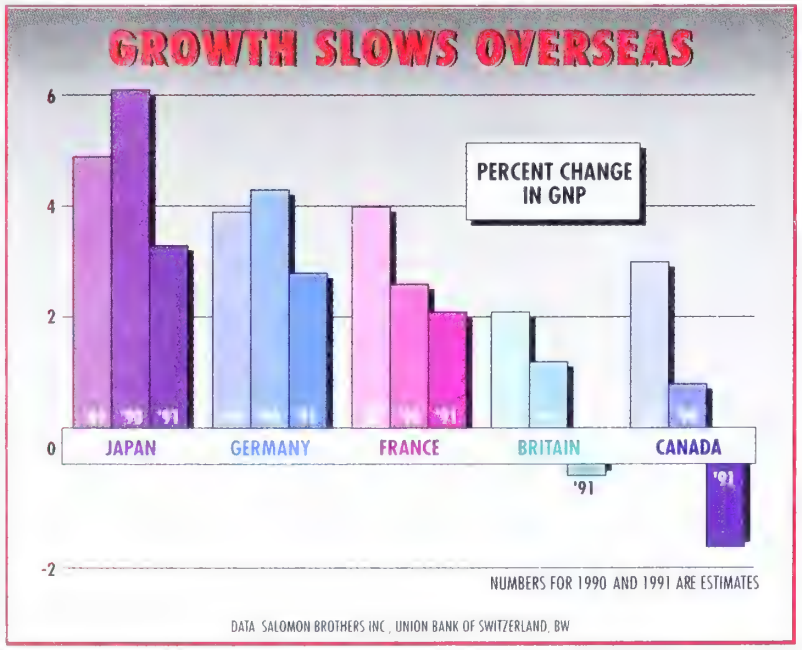
1980s. "Financial intermediaries are supposed to diminish the risks for depositors of lending to businesses," says Morgan Stanley's Stephen Roach. "Now, it turns out that the financial intermediaries have more risk on their balance sheets than corporate borrowers do."

For nearly a year now, under pressure from regulators to improve their capital positions, banks have been selectively slamming the door on borrowers. Commercial and industrial loans by all commercial banks grew a slight 0.2% from November, 1989, to November, 1990, while a year earlier the annual growth rate was nearly 7%. The Fed has acted twice to offset this "credit crunch," cutting short-term interest rates in July and, on Dec. 4, freeing $13.6 billion in bank reserves in an attempt to boost lending. But wary bankers and worried economists say there's no end in sight for the squeeze.

Bankers blame overzealous regulators for initiating the crunch by forcing banks to recognize faltering real estate markets and mark down the collateral behind many loans. Those markdowns, combined with actual loan losses in a slow-growth economy drove bank-stock prices down and complicated the bankers' task of raising new capital.

Now, banks cite the slowing economy as the prime reason for their ever-tightening loan standards. "Banks are like swimmers trying to feel where th tom is," says Fed Governor Jo LaWare, a former chairman of Sha National Corp. in Boston, where the recession and the credit crunch hit hardest. And until they can b that conditions won't get worse, L says, "bankers aren't shooting for mum capital levels—they want cushion." So they're still turning would-be borrowe

Those custome dwindling in num the economy's slid businesses' nee credit. That's a n part of any dow The danger is t the economy sta show signs of life or nine months, b ers will be read banks before ba are ready for b ers. Bankers, still in problem loans, be very tough," Dennis J. Jacobe, tor of research f U. S. League of Sa Institutions. A bu "will have to sho bank that deman your product strong that you



THE PRESSURE IS OFF THE WEEKEND IS ON℠

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PEACE IN THE GULF COULD BREAK THE RECESSION'S GRIP

Peace in the Middle East. Saddam Hussein's army beats a total retreat to Baghdad in early January, 1991. American troops come home soon after. No bullets fired. No body bags. What a wonderful way to ring in the New Year.

A peaceful solution to the Persian Gulf crisis could limit the economic pain at home as well. Like a movie played in reverse, oil prices would swiftly fall. Inflation and interest rates would head lower. Consumer confidence would rebound, consumer spending would strengthen, and business investment would pick up. Regional Financial Associates Inc. predicts that if peace comes on Jan. 1, the nation's real gross national product will decline a mere 0.2% in the first quarter of 1991 and improve to 2.6% in the second quarter. But if the standoff in the gulf continues well into next year, RFA expects the first quarter to decline by 1.6%. "Peace would go a long way toward mitigating the severity of the downturn," says RFA economist Mark M. Zandi. Any subsequent recovery isn't likely to be robust, however.

For sure, peace would drive energy prices down. In the immediate aftermath of relaxed tensions, crude-oil prices could briefly sink to the low teens, though industry analysts say prices would average about $20 a barrel in 1991, compared with an average of $30 in the fourth quarter of this year. And that spells low inflation. Economic consultant DRI/McGraw-Hill estimates that U.S. inflation would plummet from a 7.4% annual rate in the fourth quarter of 1990 to a 2.8% pace in the second quarter of next year. Interest rates on everything from Treasury bills to fixed-rate mortgages would head down as inflation abated. And the Federal Reserve Board, freed from the need to fight inflation, could pursue an expansive monetary policy. Plus, the stock market, which fell like a stone after the invasion of Kuwait, would surely rally mightily.

Peace would have an even more dramatic effect on consumers. For one thing, they would have more money in their pockets from the decline in energy prices to buy everything from appliances to toys. Just as important, peace would give a big boost to the public's faith in the economy's future. Consumer confidence, as measured by the University of Michigan index, plummeted from 88.2 in July to 73.0 in October—its lowest level since the 1982 recession. And complaints about being squeezed by inflation jumped from some 5% of households surveyed to 22%, says Richard Curtin, the university's director of consumer surveys. Of course, confidence won't soar right away, most economists emphasize. According to RFA, it could take at least six months to get back to the June, 1990, readings (chart).

'ANEMIC.' And peace is no economic panacea. It's unlikely that the economy's recovery would come anywhere near the typical postwar GNP rebound of around 5%. The 1980s legacy of too much borrowing, too many buildings, and too much capacity in many service industries will put a damper on growth, says Charles I. Clough Jr., chief investment strategist at Merrill Lynch & Co. Adds Richard B. Berner, an economist at Salomon Brothers Inc.: "Economic activity could remain anemic for a long time."

Even if it were possible to rewind the tape, the economy would simply return to its pre-Saddam crawl. And a lot of damage has already been done: The unemployment rate has jumped from 5.5% to 5.9%, employment for both blue-collar and white-collar workers has fallen, and the credit crunch has worsened sharply. Households would still feel pinched by record debt burdens and falling home prices. And it could take years for the nation's impaired banking system to regain its health.

Still, glad tidings of peace in the New Year would boost consumers' spirits and move the economy onto a growth track. And economic growth, no matter how weak, is preferable to recession.

By Christopher Farrell in New York, with Mark Ivey in Houston

the bank a gold-plated credit. have to force the lending window

Many companies are tightening relationships with suppliers as a v obtaining credit, observes Neal M chief economist at First Boston R. H. Macy & Co., the highly leve retailer, turned to suppliers for cr fill the stores with Christmas good Macy's investors can come up promised capital infusion of $100 or more. And when Northwest A Inc. was shopping for a $500 milli of credit, it bypassed the financia kets and tapped Airbus Industr General Electric Co.—and got c can use to restructure debts as v finance airplane purchases.

But small and medium business be scrambling. After its bank call $770,000 credit line, partners in th ton advertising agency of Parson, mann, Stephan & Rose recapitaliz firm with their personal assets. N erating as Friedmann & Rose, th insists on cash up front from clien no longer finances clients' purcha TV time and newspaper space. "Th we're doing business now is com different," says President John M.

TROUBLING BACKDROP. It may be cult, but paring back debt is, afte good thing. Going into this rec private debt amounted to 1.42 time far higher than the 1.05 level of Debt is the troubling backdrop recession, the fuel that drove the inflation and precipitated the crunch. And "deleveraging," as call it, is a tricky process. "We pray for a mild recession, becaus this debt overhang, if we get a one, many businesses and hous will get hit," says Victor Zarnowit versity of Chicago economist and time business-cycle watcher.

As usual, it's the Fed that h greatest power to mitigate the effects of undoing the excesses 1980s. In the wake of the Novemb employment numbers, the Fed money, and most economists expe key federal funds rate to be do about 6½% by mid-1991, from 7¼ Many at the Fed, though, still do this as a guaranteed recession Chairman Alan Greenspan ack edged in recent testimony that the omy was in a "significant down but he and others don't think th negative effects are "cumulating" full-blown retreat. True, this rec doesn't look like others. But the c is that the new face of recession turn out to be a lot uglier than span and others are betting.

By Karen Pennar in New York an McNamee in Washington, with Mic Mandel in New York, Eric Schine Angeles, and Geoffrey Smith in Bos

VILL THE U.S. BEAR THE BRUNT OF THE BREAKDOWN AT GATT?

Stalled trade talks threaten America's vital export push

FARMING IN FRANCE: IF THE U. S. RETALIATES FOR THE EUROPEAN COMMUNITY'S NEW LIMITS ON AMERICAN BEEF AND PORK, THE EC IS READY WITH FURTHER BARRIERS

he U. S., Canada, and Britain are in recession, and growth is slowing in Japan and Europe. So the last ıg the world needs is a slowdown in bal trade (chart). But that's what ld result from the Dec. 7 collapse international trade negotiations in ıssels.

he breakup came over the European nmunity's refusal to cut agricultural ɔsidies. The U. S. and developing ıntries believe that subsidized EC farm ɔducts drive food prices down and sh their exports off world markets. e collapse of negotiations is also a sonal blow to George Bush, who zed every opportunity over the past ar to lobby for concessions on farm de.

Agreement, the White House said, uld offer the world a "new engine of ɔnomic growth." But now, the failure the talks is particularly bad news for e U. S. During much of 1990, the nerican economy has been buoyed by ınufactured exports, which accounted r 80% of overall growth. But without onger rules in the General Agreement Tariffs & Trade (GATT), U. S. software d pharmaceutical exporters will conue to be hurt by pirated foreign verns. And insurers and bankers will still ce high barriers in developing nations d Japan.

Europe's burgeoning sense of self-importance helped scuttle the so-called Uruguay Round of GATT talks. But the breakdown was as much a result of chance and the calendar as of the protests of 25,000 angry farmers who marched through Brussels to denounce U. S. demands to cut farm subsidies. December elections in a newly reunified Germany, the collapse of communism in Eastern Europe, Margaret Thatcher's resignation as Britain's Prime Minister, and the military confrontation in the Persian Gulf all proved to be mighty distractions.

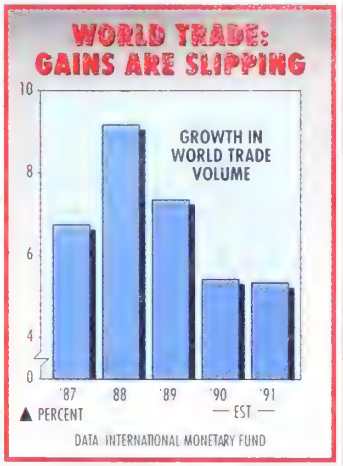
Yet few see an immediate trade war resulting from the impasse. For one thing, GATT's rules on fair trade remain in effect despite the breakdown. Instead, there will be "moderate-size" trade disputes, says economist Alastair Smith of Britain's University of Sussex.

Such tiffs could prove to be a drag on the world economy. No sooner had the Brussels talks collapsed than House Majority Leader Richard A. Gephardt (D-Mo.) said he may revive his failed 1988 legislation to force Japan to reduce its trade surplus with the U. S. or face retaliation. Bush himself heightened fears that the world might split into protectionist trading blocs by spending the week of the GATT talks touring Latin America to drum up support for a hemispheric free-trade zone. "We are apprehensive that the trend toward regional gatherings might move in a protectionist direction," says Taizo Watanabe, chief spokesman for Japan's Foreign Ministry.

In the short run, conflict is likely to break out over issues that had been put aside while the world concentrated on GATT. Among the flashpoints:

- **Japan and Korea.** Washington and Tokyo have been skirmishing over Japan's ban on rice imports and its reluctance to award large public-works contracts to American construction companies. The U. S. is also pressing Japan to keep promises to reform its distribution system and buy American computers and satellites. Korea, facing a growing trade deficit, riled the U. S. by reneging on promises to import more U. S. farm goods and by urging Koreans to shun American luxury goods.
- **Developing nations.** Piracy of U. S. copyrights and trademarks is endemic in the Third World, and many countries have erected barriers to American financial-services companies. Likely targets for U. S. retaliation include Brazil and much of Latin America, India, and Thailand.
- **Europe.** A blowup seems imminent over the European Community's farm policies. The U. S. stands ready to retaliate for newly imposed restrictions on American beef and pork. The EC will reply with new barriers to the importation of other U. S. foodstuffs.

Europeans gamely insist that the GATT negotiations will resume. "This is the failure of this week," says a top French trade official. "If things get put off until February, that's not important." But the U. S. economy will be deeper in recession by then, and the Bush Administration will be bumping up against a Mar. 1 deadline for submission of a final trade agreement to Congress. With no indications of a breakthrough anytime soon, chances for a successful revival of talks in 1991 are fading fast—and with them, one of the best ways to head off a worldwide economic slump.



By Paul Magnusson in Washington, with Patrick Oster in Brussels, and bureau reports

THE THRIFT BAILOUT IS HEADED FOR ROUGHER WATER

Recession and a crippling shortage of funds add to the woes of the Resolution Trust Corp.

In its first 16 months of operation, the clean up of the giant savings and loan mess has been much more effective than its numerous critics predicted. By the end of 1990, Resolution Trust Corp. will have disposed of more than 340 insolvent thrifts seized by the government and received $110 billion for S&L assets.

Next year will be another story, however. The bailout may slow considerably. That could balloon the eventual cost to taxpayers well beyond the already staggering estimate of $500 billion.

There are two major reasons: The RTC is running out of money, and the market for S&L assets is drying up as the economy deteriorates. "The prospects next year are very grim," says Atlanta real estate attorney John G. Aldridge. Bank regulators, worried about insolvencies, are frowning on new real estate lending, making it tough for potential RTC customers to get financing. The recession is shrinking demand for real estate, securities, and loans in the RTC's portfolio. And Congress, terrified of the voter backlash against the bailout, is loath to give the agency the cash it needs to continue its operations.

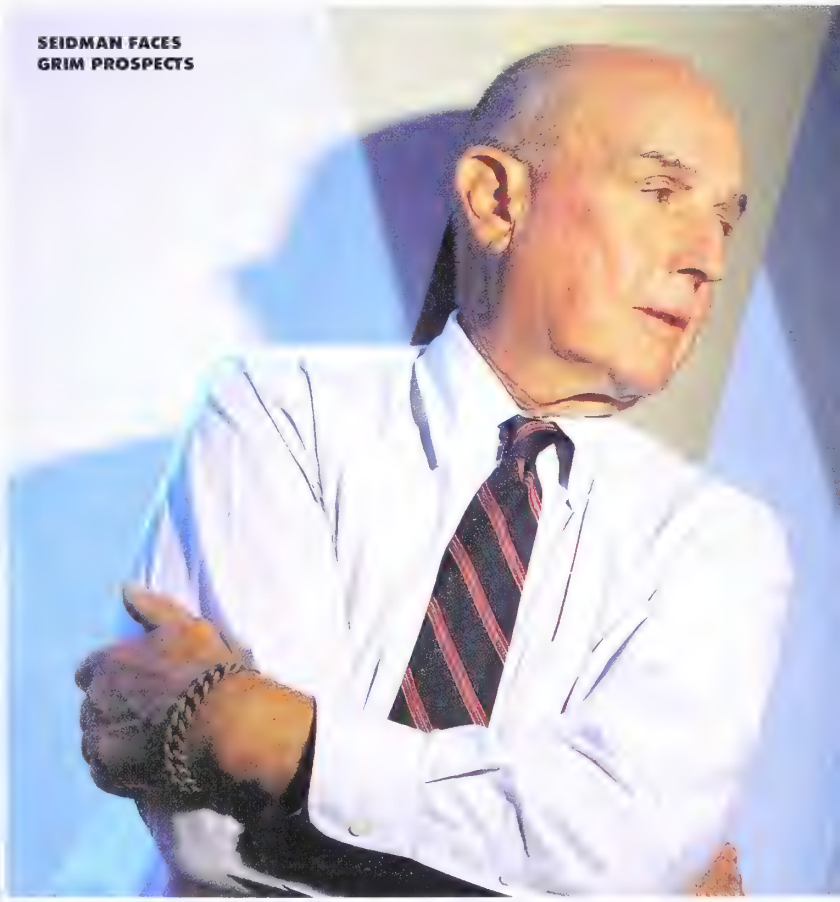
BLOATED COSTS. Created overnight when Congress passed bailout legislation in August, 1989, the RTC has blossomed into a financial giant with 5,000 employees in 20 offices nationwide. But without funds from Congress, the RTC can't dispose of sick thrifts and seized assets. The longer the agency holds them, the further their value is likely to plummet. When they're sold, the reduced government take will bloat the cleanup's cost even more. "We have hired the whole football team and put it on the field," says RTC Chairman L. William Seidman. "It gets expensive if we don't play."

Despite startup headaches, RTC officials may soon remember 1990 fondly. A $50 billion budget provided sufficient funding to take over ailing thrifts. The RTC reached its asset-sales targets by peddling the cream of its portfolio, mostly liquid securities and sound mortgages and a slew of consumer loans. General Electric Capital Corp. bought nearly $915 million of auto loans that were first issued by Buffalo-based Empire Federal Savings Bank of America.

The RTC's task will be far tougher in 1991. The RTC can expect to take on an additional 223 insolvent S&Ls and $186 billion of their assets, says Washington thrift consultant William C. Ferguson. Having already sold many of its most promising properties, the RTC will be faced with unloading the dogs in a weaker economy. As the recession gathers force, loan delinquencies will rise. The RTC already has $13.4 billion of overdue residential and commercial mortgages that buyers are reluctant to touch.

Some RTC properties may never move. Developers are unlikely to want t gle with such environmental booby as bald-eagle nests on a North Ca property, rare blind scorpions on ar tin (Tex.) plot, or chromium-slag tion in New Jersey's Port Liberté minium development.

The RTC also will have to contend the legacy of its growing pains, i ing bureaucratic snafus that turned off potential buyers. Conside widely publicized auction of $350 n of trophy properties scheduled for 15. A consortium of domestic and eign investors led by Affiliated In tional Investors Inc. of Arlington, spent $500,000 analyzing about a properties scheduled for auction.



SEIDMAN FACES GRIM PROSPECTS

was made even tougher when the failed to deliver detailed financial mation as promised. When an out- buyer turned up, the RTC pulled the auction one of the best proper--the Madison office building in Ad-, Tex. The consortium had already t $25,000 to study the Madison, ac- ng to Affiliated President Richard uerkle. When the company that set ie auction for the RTC couldn't pay hare of the expenses, the RTC can- the event. "It makes it very hard ne to bring those guys to another on," Buerkle says of his investors.

'HILANTHROPISTS. Constraints im- d by Congress last year on the RTC's ngs with investors will continue to stumbling block in 1991. Stung by ories of the S&L giveaways of 1988, regulators lavished tax breaks and t guarantees on buyers, lawmakers ired the RTC to sell properties at not than 95% of appraised value.

it buyers aren't philanthropists. Nor ley want to face congressional klieg s later for making big money on a , as Arizona businessman James M. did. Congress questioned the terms er which he acquired 15 failed Texas fts in 1988. Fail put up only $1,000, the governmnet financing the rest. y purchasers thus are standing on sidelines. Salomon Brothers, Black- ie Group, and Providence-based Old Stone had to shut down their fund aimed at buying troubled thrifts for lack of interest. "It's very hard to entice investors," says Salomon's Gerard Smith.

Bank regulators are inadvertently aggravating the RTC's plight. Under their watchful eye, lenders are less willing to finance real estate purchases. Because of capital requirements that are forcing them to bolster their balance sheets, banks and thrifts—the natural investors for the RTC's assets—are in no position to launch a buying spree. Making matters worse, banks are boosting capital by hawking the same kind of assets as the RTC: branch networks and loans. "We're not the only game in town," concedes RTC Executive Director David C. Cooke. "And frankly, the other players are a lot easier to deal with."

The RTC has taken some steps to overcome investor resistance. Under new policies instituted last summer, the agency is offering discounts and has allocated about $7 billion to finance up to 85% of the value of properties. Although critics worry that defaults could force the RTC to take back the assets, the agency is bullish about the program. The plan could offset the declining availability of bank financing. And after a sale, the RTC would no longer be on the hook for taxes and overhead expenses and would benefit from the 15% downpayment and 10% to 11% interest payments.

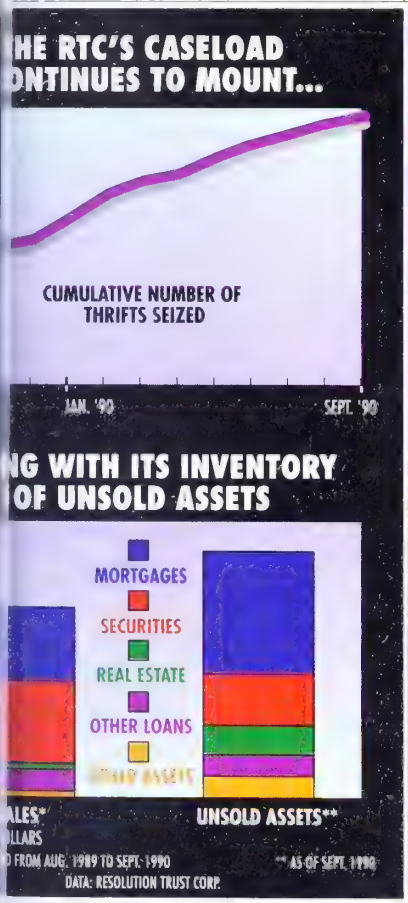
The agency also is trying to recoup from the aborted Nov. 15 auction by marketing separately the world-class properties that were on the block—including Miami's CenTrust Financial Center. The stunning 37-story chrome building designed by I. M. Pei, which was built for $160 million in the mid-1980s, will go on sale again on Jan. 22, with the minimum bid set at $50 million. To attract workout specialists, the RTC is offering deep discounts on pools of less-desirable real estate and loans—for example, a $300 million package from Imperial Savings & Loan Assn. in San Diego, which includes a passel of troubled real estate loans. In return, the agency will obtain a cut of the proceeds from the workouts. To reach a wider spectrum of investors, the RTC also will package commercial mortgages and even properties for sale as securities.

SURE START. But the smooth operation of the RTC depends on adequate funding—and that's in doubt. In the last quarter of 1990, as the elections approached, Congress refused to approve any new funds. The RTC has had to postpone disposing of as many as 100 S&Ls. So far, the delay has cost about $350 million as the money-losing thrifts continue to operate. And the agency may run out of money by early next year. Even with the election over, Congress remains gun-shy. "Funding will probably come in reluctant dribs and drabs," says Representative Charles E. Schumer (D-N. Y.), a Banking Committee member. In fact, some lawmakers suggest linking RTC funding to its success in liquidating assets. But that could undermine the RTC's efforts even further because the money is needed to consummate the sales.

Considering the job, the RTC got off to a surprisingly sure start. But its future looks less promising. Hobbled by a sinking economy, a skittish Congress, and tough bank regulation, the S&L cleanup could be far more expensive—and take far longer—than anyone thought.

By Catherine Yang in Washington, with Wendy Zellner in Dallas, Chuck Hawkins in Atlanta, and John Meehan in New York

Having sold its most promising properties, the RTC has to unload the dogs in a slumping economy



HERBERT ALLEN WITH MANAGING DIRECTORS PAUL GOULD AND ENRIQUE SENIOR: WHILE WALL STREET IS DOWNSIZING, ALLEN SAYS HIS FIRM IS HAVING ITS "BEST TWO YEARS EVER"

SCHMOOZING ALL THE WAY TO THE BANK

Investment banker Allen & Co. thrives on long-term relationships

Matsushita's bid to buy MCA Inc. was on the verge of collapse. The Japanese electronics giant and the Hollywood film studio couldn't agree on price. Frustrated, Hollywood superagent Michael Ovitz, the deal's architect, left the negotiations in New York and headed back to Los Angeles. But Matsushita Electric Industrial Co.'s investment banker, Herbert A. Allen, president of Allen & Co., used a combination of schmoozing and salesmanship to get the deal back on track. In a series of phone calls with advisers to both camps on Thanksgiving Day, he persuaded everyone to put aside hard feelings and return to the bargaining table. Meanwhile, Ovitz, a longtime business associate of Allen's, persuaded Matsushita to up its bid by $2, to $66 a share. Later that day, as Allen was starting Thanksgiving lunch at Manhattan's Four Seasons, the news came that MCA had accepted the offer.

It was not the first time that low-profile Allen & Co. had beaten out bigger, better-known investment banks and wangled a coveted role in a major deal. While Wall Street is furiously laying off employees, Allen says his firm is having its "best two years ever." By maintaining close personal relations with clients in a few key industries, most notably entertainment, Allen & Co. has proved that bigger is not necessarily better. Large investment banks have increasingly ephemeral, fee-driven dealings with clients. Allen is very different. "They are one of the few all-star merchant banks left. They believe in long-term relationships," says Roberto C. Goizueta, CEO of Coca-Cola Co.

Allen & Co. and Allen's managing directors buy long-term positions in companies that often become investment banking clients. The firm, which has assets of $200 million and a staff of 150, owns the stock of about 125 companies, from 10% of Air & Water Technologies Corp. to 50% of Excalibur Techno

says Allen. Allen & Co. does inves banking work for about 30% of companies. Unlike other Wall firms, Allen pays managing di very low salaries and requires th put up their own money. That's motivation to become involved companies they own.

Much of Allen & Co.'s recent s derives from a 1973 investment lumbia Pictures Entertainment In studio had fallen on hard times Allen and Allen & Co. bought a stake of Columbia's stock for $2 lion. Allen eventually began calli shots. In 1982, he was instrume selling Columbia Pictures to Coc In 1989, he represented Columbi Coke when Coke sold Columbia t Corp. for a very rich $4.8 billion. got $70 million profit for his rem Columbia stock. And while Blac Group, Sony's investment banker, $10 million fee, Allen persuaded C pay him a hefty $30 million fee.

RACONTEUR. The Sony deal also c ed his relationship with Ovitz, wh on Sony's team. A year later, i Ovitz who hired Allen as Matsu investment banker. Matsushita giv len good marks, especially for his on how to handle MCA's manag "He doesn't force himself on you, to oversell himself, the way some cans do, and that is one reason v comfortable with him," says Ma Hirata, the chief financial and ac ing officer of Matsushita.

Allen & Co.'s entrepreneurial ro back to Herbert Allen's father a cle, who accumulated much of the family's current wealth, estimat over $1 billion. By the time Herb was 27, he had started his own firm $1 million. Today, Allen, a spare, a ed man of 50, lives at the Carlyle in Manhattan. A skilled raconteur, cultivates media and Hollywood re ships with the likes of author Tom and movie producer Ray Stark.

Allen's competitors at other Street firms portray Allen & Co dinosaur. "There is no depth of They don't institutionalize anyt says one. But lik Allen is a harsh c the way Wall does business. Sa len: "In the 1980s, companies have destroyed by the vestment bank That may well even more opportu for Allen & Co.

By Leah Nathan ro, with Ronald in Los Angeles an Gross in Tokyo

FEES AND STOCK SALES KEEP ALLEN & CO. HUMMING

Date	Client/Investment	Profit/Income Millions	Description
11/90	MATSUSHITA	$8	Fee for purchase of MCA
11/89	COLUMBIA PICTURES	$30	Fee for sale to Sony
11/89	COLUMBIA PICTURES	$70	Profit from sale of shares owned by Allen to Sony
6/89	NEWS CORP.	ND	Fee for sale of $825 million in assets to Reed Intl.

ND = Not disclosed

DATA ALLEN & CO., SECURITIES DATA CORP

GENE G. MARCIAL

ILL NCR MOVE ON RADATA WHILE GHTING OFF AT&T?

arlier this year, when Teradata was flying high, investors were quick to reward the maker of r-performance computer data-base ems with a lofty price-earnings ra- But in June, when analysts began suspect that Teradata's earnings e in jeopardy, investors were just quick to give it the back of their d. The stock began sliding from 31 13 by late September. When the pany confirmed that it would post ss, the shares collapsed to 7 (chart). ely, Teradata has inched up past 10, yed in part by bargain-hunting.

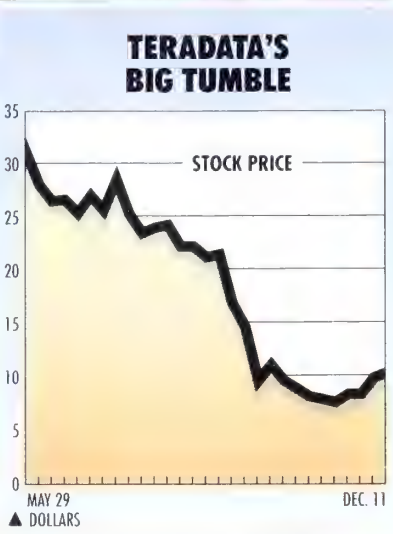
ut there's more to the buying than gain-hunting. Most of the recent ac- y has come from smart-money in- tors who are betting on a takeover. se pros say the stock has dropped l level that is sure to attract a buy- And at least one candidate is said to ready to make an offer: NCR. It ady owns a 9.4% stake, which it ght after the two companies en- d a joint venture to produce Unix- ed parallel-processing computers.

CR is, of course, trying to fend off a eover bid from AT&T. Buying Tera- a, thereby taking on a little more t, is unlikely to keep AT&T at bay. netheless, Teradata is a perfect fit NCR's long-term plans. NCR paid an rage of $26.27 a share in April for Teradata holdings, so at current ces, the stock is cheap.

While the market has hammered radata's shares, "the value of its hnology and prospects has not di- nished," says Don Smalter, director research at 13D Research. Major nputer makers use its processes and oducts for such vital functions as tworking systems, "relational" data ses, and parallel processing.

ERRATION. Teradata posted phenom- al growth prior to losing 50¢ a share the September quarter. The loss was gely because of weakened demand Europe, primarily in Britain and rmany. But over the previous four ars, earnings grew from $3.6 million $22.2 million, and revenues jumped om $17.1 million to $224 million dur- g the same period.

Smalter believes that based on fun- mentals, "and with a deep-pockets rtner such as NCR," Teradata will quickly climb out of the computer industry's current slump.



Considering the company's stock price and its growing market share as a supplier of massive parallel-processing hardware and software systems for commercial markets, "you would be out of your mind not to see that Teradata is a takeover target," says money manager Steve Leeb, president of Money Growth Institute, who has been buying shares. NCR wasn't available for comment. Teradata says NCR cannot buy more shares without its approval. Teradata says it isn't aware of any NCR plan to buy more shares.

CHILL WINDS ARE RUSTLING MEAD

During the takeover mania of the 1980s, major paper producer Mead was among the "regulars" perennially rumored to be a target. Mead Chairman and CEO Burnell Roberts learned to live with the buyout talk. But several big investors say that with the stock hitting the low 20s in recent weeks, management has become extremely concerned.

"They are worried by the ease with which AT&T was able to obtain bank financing for its $6.12 billion hostile takeover offer for NCR," says one New York investment manager. He notes that Roberts, who is aware of Mead's increasing vulnerability, has assured several investors that he is studying options to enhance shareholder value. Recently, says the pro, the chairman has hinted he feels "it's time" to move.

One possibility: The company could sell or spin off to shareholders Mead Data Central, which markets electronically stored information, including Nexis and Lexis, the news-retrieval and legal-research services.

One analyst estimates that Mead's data operations are worth $990 million to $1.2 billion, or $15 to $20 a share. He says the betting is that Mead's other nonpaper unit, Mead Imaging Div., which makes color-copying systems, will be merged in a joint venture with a major Japanese technology company.

"Mead's huge investments in these nonpaper operations haven't been paying off, and management is well aware of it," says one big investor. He figures that Mead's total breakup value, including 1.3 million acres of U. S. timberland, comes to $55 to $60 a share. Mead declined to comment.

PETRIE MAY BE READY FOR PRIVACY

Even though retailing is high on the Street's list of unwanted industries, Petrie Stores is on top of some savvy pros' buy lists. Since October, Petrie has been trading at 15—just three points above its 1990 low. The stock's fall has made Petrie all the more alluring to asset players, many of whom put its breakup value at $25 to $30 a share.

Their appetites are being whetted by whispers that 89-year-old founder, chairman, and CEO Milton Petrie is finally seriously considering taking this major retailer of women's apparel private. Milton Petrie owns 60.7% of the stock, mostly purchased at prices higher than $30 a share. With the stock now trading at less than half that, Petrie could easily pay a premium to current shareholders.

In 1988, Petrie publicly floated the possibility of his buying the company. But he later abandoned it. "We wouldn't be surprised to see Petrie revive the idea of going private, since the stock has fallen to such a ridiculously undervalued level," says Charles LaLoggia, editor of the Rochester (N. Y.) newsletter *Special Situation Report.*

One of the chain's attractions is its 14% stake in Toys 'R' Us, worth about $20 per Petrie share. Petrie also owns 23.4% of Paul Harris Stores and 18.2% of Debs Shops, which Argus Research figures are worth a total of $8 a share. Petrie's 1,600 specialty stores nationwide are valued at $10 to $14 a share. Argus notes that if anything happened to Milton Petrie, speculation of a breakup or sale would boost the stock.

STRATEGIES

FISHER-PRICE: FIGHTING TO RECAPTURE THE PLAYPEN

The toymaker is restructuring to win back its preschool market

It's as close as you'll get to a sure thing in the topsy-turvy toy business: Ask a young mother which playthings she likes for her tots, and odds are Fisher-Price will head her list. "When I go to a store, I go to the Fisher-Price area first," says Kathleen Phillips, who shops for her two small children and directs a nursery school in Poughkeepsie, N. Y.

That loyalty is the envy of the industry. And through most of the past decade, the East Aurora (N. Y.) toymaker turned parental devotion into enormous sales gains for its playpens and Puffalumps dolls. But the competition finally caught on: While Fisher-Price was botching a move into toys for older kids, well-heeled rivals such as Hasbro, Mattel, and Rubbermaid's Little Tikes division stormed its preschool and infant citadel. The result was disastrous: Fisher-Price revenues dropped 17%, to $703 million, in the fiscal year ended June 30.

EARLY MOVES. This Christmas, the unit of Quaker Oats Co. is retrenching. It has scrapped most products outside its traditional base, shut down three factories, and aggressively cut costs. By April, it will emerge as a public company after a $400 million spin-off to shareholders by its parent. Business [illegible] be anything like the old days: The preschool market is s[illegible]ft, and the competition for those one- to [illegible]-year-olds is [illegible] tough.

What [illegible]-Price has going for it is a remarkably powerful brand name and a new chief executive since May, Ronald J. Jackson. Jackson has played this game before: In 1985, he led the spin-off of another struggling toy outfit, Kenner Parker Toys Inc., from another impatient food conglomerate, General Mills Inc. He quickly cut Kenner Parker's work force in half, hiked margins, and cut inventories and receivables. Two years later, pressured by a hostile suitor, he sold out to Tonka Corp. for $51 a share—more than three times the company's first valuation.

Jackson's early moves at Fisher-Price look familiar. Since March, the company has racked up restructuring charges totaling $84.6 million—including $18.1 million to cover expected losses this year. After the charges, Fisher-Price lost $88.8 million in fiscal 1990. Quaker executive Paul E. Price, who launch[illegible] shake-up before Jackson arrived, [illegible] one plant. Jackson shut two m[illegible] total of 1,000 workers were la[illegible] Fisher-Price wouldn't answer qu[illegible] for this story, but more cuts appe[illegible]ly. The company's sales per em[illegible] about $100,000 this year, still lag [illegible] those of Hasbro Inc. and Little Tik[illegible] by 30% to 40%. Hasbro depends [illegible] on cheap contract labor in Asia, [illegible] Fisher-Price makes toys in its [illegible] plants in the U. S., Mexico, and E[illegible]

LOST CLOUT. The productivity gap [illegible]cial because the company is fe[illegible] price squeeze. While it was hot, [illegible] Price could dictate pricing and pa[illegible] terms to its retailers. Then can[illegible] year's debacle. Fisher-Price tried [illegible]versify into so-called promotiona[illegible] the often faddish playthings heav[illegible]vertised and promoted to older [illegible] That was a far cry from its trad[illegible] basics such as pull-toys and [illegible] which are marketed to parents [illegible] under-five set. Dogged by proc[illegible] foul-ups in the complex new line o[illegible] including electronic musical instru[illegible] and intricate dollhouses, Fisher-Pr[illegible] livered many of them in late O[illegible] three months too late to make th[illegible] of Christmas. And the new toys [illegible] sell well once [illegible] arrived.

The lapse [illegible] much of F[illegible] Price's negot[illegible] clout with re[illegible] "The club ch[illegible] hands," says W[illegible] C. Killgallon, [illegible] man of Ohio A[illegible] a smaller rival [illegible] customers got [illegible] Toy-store buye[illegible] manded rebat[illegible] some slow-s[illegible] merchandise. [illegible] Price even fo[illegible] self unable to [illegible] prices on cor[illegible] dler lines, in p[illegible] cause Little [illegible] had cut price[illegible] year before.

Jackson may [illegible] to live with [illegible] prices through [illegible] Recession-wary [illegible] ents aren't buy[illegible] much as retail[illegible] pected, forcin[illegible] counts on inve[illegible] And Fisher-P[illegible] new competit[illegible] playing rough[illegible] bro decided [illegible]

FISHER-PRICE TOYS AND FANS

's ago to invest more in its Playskool unit. When Fisher-Price turned its ntion from preschool and infant toys, had a lot of opportunity," says 'skool President Dan Owen.

nalysts say Playskool now spends million a year on advertising, close nd industry leader Fisher-Price. Simy, Mattel Inc. is backing its three-old line of Disney-licensed rattles, hing toys, and dolls with more than million in advertising. Those prodwill produce an estimated $150 milin sales this year, much of it coming of Fisher-Price's hide (chart).

hen there's Little Tikes. The Rubberd Inc. unit has doubled sales in three s, to about $300 million, even while ng out less than $2 million for adverg. Many parents say they're as imsed with the quality of Little Tikes lucts, which tend toward larger toys as plastic jungle gyms and slides, they are with Fisher-Price's. Little s is expanding capacity at its plants alifornia, Ohio, and Ireland.

OTS. But the biggest threat to Fishrice could be kids themselves. The ographics look promising: Babymer parents have pushed the U.S. h rate to its highest level since their generation appeared. But many toy utives worry that even toddlers, ed earlier to television and nursery ol, are starting to demand the proional toys long aimed at their elders. herine Towbin, a Bothell (Wash.) emaker, used to buy plenty of Fishrice toys. But her son, Michael, an rnoon TV-cartoon devotee, started ng for Teenage Mutant Ninja Turtle things when he was three. Daughter sten was stuck on Disney products at two. "For eight months, everything Donald Duck," Towbin says.

hat's a big reason Fisher-Price may ntually have to make another foray the promotional toy arena, focusing time on the toddlers it knows so l. Jackson has the knowhow: He has ed at least four executives from his team at Kenner Parker, which built a ng promotional-toy core. And Fisher-e, last year's failure notwithstandhas nurtured its own promotional , including the soft Puffalump dolls Fun With Food plastic food replicas. isher-Price appears to be several rs away from such a strategy, howr. For now, it's simply losing sales market share. Its shares, come the -off, should go cheap, fetching just to 60% of projected revenues. By trast, Mattel's market capitalization 5% of projected sales. It will be up to kson to prove that Fisher-Price can its tears and recapture the playpen.

By Keith H. Hammonds in Boston, with s Therrien in Chicago and bureau re-ts

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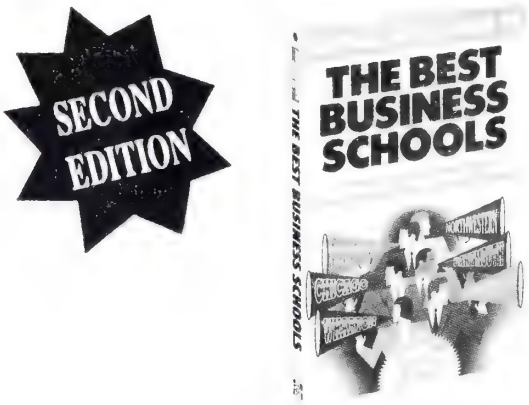

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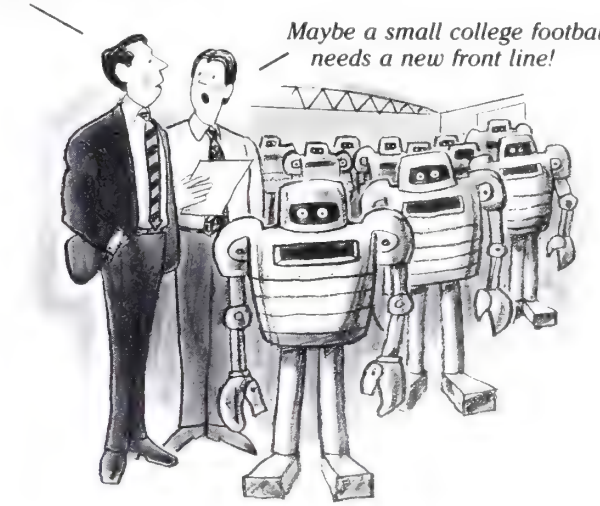

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ERMAN AND JARECKI: 777-FILM GIVES LOCAL LISTINGS

OMOFONE: NOW, YOU WON'T SS THE LAST PICTURE SHOW

ouglas Hoitenga and J. Russell Leatherman were working late in Los Angeles one night when they decided to movie. They tried calling a nearby theater for the schedut got a busy signal. Then they went out to buy a paper, to learn they had just missed the last showing.

e evening, however, was not a total waste. Hoitenga, a eting executive, and Leatherman, an independent TV pro-r, got the idea for an interactive telephone service that d provide movie listings. They formed PromoFone, which n offering "MovieFone" in Los Angeles in January, 1989, has since expanded to New York, San Francisco, and on. By dialing 777-FILM, callers can learn what movies laying, where, and when for the cost of a local call.

omoFone plans to roll out in nine other cities and expects profitable in four years, says Andrew R. Jarecki, director arketing. Since callers don't pay a fee, PromoFone's $1.1 on in revenues come from selling 15-second ads for movies ne beginning of its message. It also sells demographic rmation to film studios, using zip codes callers must input. ne biggest obstacle PromoFone faces these days is buildconsumer awareness. Some papers won't take its ads, ning PromoFone is a competitor. So it advertises on radio has distributed thousands of business cards emblazoned 777-FILM. But getting the message across isn't easy. At cent New York street fair, PromoFone employees were d if the company delivers videos after midnight.

VENTH GENERATION: E 'GREEN' MAIL KING

Want to cut back on plastic waste? Try a string shopping bag. Want to keep warm without denuding a duck? a comforter stuffed with milkweed floss instead of down. ironment-friendly items both common and unusual are nstays at Seventh Generation, a Vermont mail-order comy. Sales should hit $6 million this year. That would make it nation's largest "green" catalog, says New York direct-l consultant Jacquelyne Ottman.

The catalog was started in 1988 by a nonprofit group to sell energy-conservation aids. The money-losing venture was taken over two years ago by direct-mail veterans Jeffrey A. Hollender, 36, and Alan Newman, 44. They changed the focus to the environment and rented mailing lists from environmental groups and trendy catalogs such as L. L. Bean Inc. But customers aren't all upscale. "Environmental sensitivity has spread far beyond the yuppie market," says Chief Executive Hollender. "Our customers are solidly middle-class."

HOLLENDER: RECYCLED ITEMS AND MORE

While 1% of its gross revenues is donated to environmental groups, Seventh Generation is no charity: A roll of recycled paper towels costs $1.16, plus shipping, compared with 79¢ in some supermarkets.

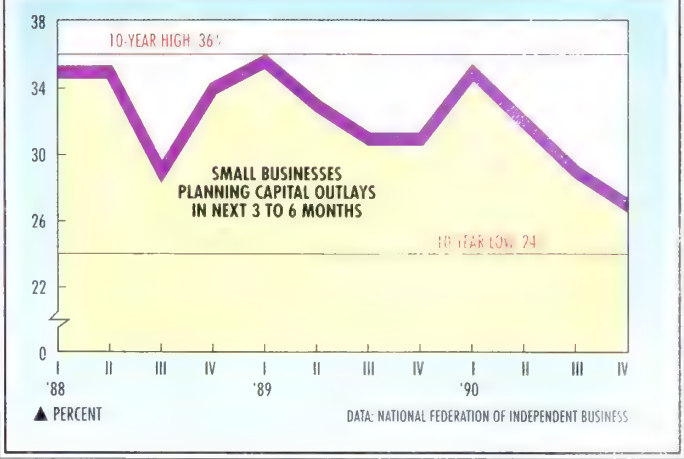
Hollender expects Seventh Generation to earn its first profit next year. With little direct competition, the company enjoys margins that average more than 50%. But that could change: Other green catalogs are already starting to sprout up.

By Geoffrey Smith in Colchester, Vt.

TRENDS

SMALL BUSINESS TIGHTENS UP ON CAPITAL SPENDING

Economic gloom is making small businesses more cautious. In the third quarter of 1990, capital-spending plans of small-business owners hit their lowest level since 1982, says the National Federation of Independent Business. Just 27% of the 2,140 small businesses surveyed said they planned to make capital outlays during the next three to six months, down nine points from the 36% reached during the first quarter of 1989.



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Investing

PUTTING YOUR CASH WHERE YOUR CONSCIENCE IS

Back in the early 1900s, church endowments refused to buy "sin" stocks—shares in tobacco, alcohol, and gambling companies. During the Vietnam era, antiwar investors gave defense contractors the cold shoulder. In the early 1980s, to protest apartheid, universities and municipalities dumped their shares of companies that had operations in South Africa.

Now, in the 1990s, self-styled socially responsible investment is coming into its own. According to the Social Investment Forum, a trade association in Minneapolis, ethical investments in pension funds, mutual funds, and municipal and private portfolios total more than $500 billion, up from $40 billion in 1984. And many of the mutual funds designed to meet "ethical" criteria have been around long enough to establish a track record. Their performance shows that you don't have to sacrifice profitability by sticking to your principles (chart).

"As the baby boom generation has matured, we've realized that each of our investment decisions is an exercise in economic democracy," says Steven Scheuth, vice-president of the $700 million Calvert Social Investment Fund in Bethesda, Md. A growing corps of brokers, financial planners, and portfolio managers are helping people exercise that right by evaluating investments for their social impact.

SCREEN TEST. Mutual funds are probably the easiest way to get into ethical investing. And although their holdings often overlap, each of the dozen or so funds defines "socially responsible" in a different way. For instance, the New Alternatives Fund specializes in nonnuclear energy companies such as Burlington Resources, recyclers such as Wellman, and waste-to-energy converters such as Wheelabrator Group. Working Assets, a money-market fund, invests in commercial paper issued by companies with progressive labor practices (female and minority advancement, day care, or generous profit-sharing plans), such as Quaker Oats and Pitney Bowes, and in community development banks, such as the New York Job Authority.

Don't get the impression that socially responsible funds ignore the bottom line. Their managers screen for a company's financial health before all else. They offer the same range of investment objectives as conventional funds, from income to growth to speculative—and come in both load and no-load var

In general, says Amy ni of Loring, Wolcott & lidge, a trust company ton, social equity outperform the market bull runs and underp when the bears grow. because mature giants as GE and IBM are oft derrepresented in por while smaller-capitali stocks, such as Ben & J get more weight. F greater volatility.

Nevertheless, some fund managers have impressive results their constraints. Mo star, which tracks n funds, gives the Pax Fund an above-average ing and a below-averag The no-load balanced fu chews weapons maker sin stocks. This year, b ing up on high-capital stocks such as Proc Gamble and Walt Disne fund beat its group av It also moved into gas

> Socially responsible investing now totals over $500 billion

HOW 'ETHICAL' MUTUAL FUNDS HAVE BEHAVED

Fund	Type	Assets Millions	Total return* 3-year	1990
CALVERT GROUP				
▶ MANAGED GROWTH	BALANCED	$242.4	10.94%	-0.83%
▶ BOND PORTFOLIO	CORP. BONDS	23.3	9.94	6.63
▶ EQUITY PORTFOLIO	GROWTH	22.2	13.22	-8.22
DREYFUS THIRD CENTURY	GROWTH	158.4	15.00	0.00
PAX WORLD	BALANCED	105.9	15.96	8.19
PARNASSUS	GROWTH	19.7	5.41	-24.35
NEW ALTERNATIVES	NAT. RESOURCES	14.9	15.44	-9.34
ALL-FUND AVERAGES*				
▶ EQUITY			12.23	-9.17
▶ BALANCED			10.00	-3.46

*Through 11/30/90

DATA: MORNINGSTAR INC.

—and, says fund Presi- Luther Tyson, "we did it and early."

f course, ethical investors also lose when opportuni- knocks. If you can't buy k in oil multinationals be- e they operate in South ca, you miss big gains n Saddam Hussein in- es Kuwait. But social ens can work in an inves- s favor, too. Calvert's euth thought Borden ed like a good buy about months ago. Then he d that Borden used to a chemical subsidiary is a potentially responsi- party in 34 Superfund nup sites. Borden says it n't face any big liabilities, Scheuth felt the risk was high.

e first step for investors to the social fund field ld be the Social Invest- t Forum. Its directory mutual funds and bro- kers. The forum won't make any recommendations, but it will acquaint you with your options. Say you're interested in establishing an ethical account at Merrill Lynch or Shearson Lehman Brothers. You will be given the names of brokers at those firms with expertise in social investing.

One new tool for ethical investors is the Domini Social Index, created by investment managers Kinder, Lydenberg, Domini in Boston. The index is made up of 400 common stocks of companies that pass multiple ethical screens. Like the S&P 500, the six-month-old DSI is weighted by market capitalization, and its industry distribution is similar.

CONVERTS. In a test that compared the hypothetical monthly returns of the DSI and the S&P 500 from January, 1986, to April, 1990, the social index's performance almost never diverged from the S&P by more than 1%. The DSI's total cumulative return was 80%—vs. 81% for the S&P.

Now, Kinder Lydenberg is launching a stock mutual fund based on the DSI and managed by Loring Wolcott's Amy Domini. If the index keeps performing the way it has, the fund could attract more converts to the social investment arena. "Business ethics," says Calvert's Scheuth, "is no longer an oxymoron." And a lot of his colleagues in the social investing sector now have the returns to prove it. *Joan Warner*

Travel

IGHT PLANS R KIDS TRAVELING SOLO

oon, the skies will be filled with small flying creatures. They're what airlines call unaccompa- minors, the 5-to-12 set travels solo. The number JMs is high and rising: ed Airlines alone carries e than 100,000 a year. All hich puts the carriers in baby-sitting business.

me airlines offer a free rt service; others charge to $25 if the child changes es. It includes an as- ed flight attendant at de- ure; a ground agent at connecting airport who herds the UM to the next t; and an attendant who ires the child is handed to right person on arrival.

COOKIE. Unfortunately, skies are not always as adly as they might be. le Hall of Atlanta doesn't k she got her $20 worth n she sent her 10-year-old Doug, to visit grandpar- in Michigan last summer. the return trip, the flight attendants delivered the boy to her without asking for any ID. There was also the cookie caper. Doug's trip lasted seven hours, including a connection, and no meals were served. So in Chicago, Doug wanted to buy a cookie. The ground agent said no—but did buy a cookie for himself.

Moral: an airline's policy is only as good as the people who implement it. Rather than rely on overworked flight attendants, children should be able to act on their own. (Escort service is mandatory for kids under 12; optional for those older.) A few tips:

- Wait around until takeoff. A plane that taxis out to the runway might return as a result of mechanical problems.
- Make sure children have cards with their name, home address, phone number, and destination—and with the same info for the person meeting them. A lost child may be too frightened to remember these things.

- Children should know that if they need help in an airport, they should ask someone with an airline uniform—and that it's acceptable to be a pest to attract a busy rep's attention.
- Teach the child how to make a collect call.
- Don't give children credit cards. No one will accept a card from a minor, anyway. But they should have some cash. Older children, especially, will feel secure if they have a few dollars to buy themselves postcards or a hot dog. (Recalling young Doug's story, tell the flight attendant that purchases are O. K.).
- If possible, don't book a child on a connecting flight that is the last plane out.
- Pack a present or favorite toy to keep the child amused. The flight crew will appreciate it as well. *Carol Perkin*

Saving

'WORTHLESS' OLD STOCKS THAT PAY OFF

For years, retiree R. W. Johnson of Escondido, Calif., tried to find out if he could recoup any money from the Fund of Funds, a mutual fund that collapsed in 1972 after it was looted by infamous Robert Vesco. But Johnson, who had invested several thousand dollars while on a construction project overseas, had nothing to show for his efforts but returned inquiry letters and a seemingly worthless certificate. Then he heard of stock sleuth Micheline Massé. She located the Toronto liquidator holding money in trust for the fund's shareholders and helped Johnson recover double his original investment.

Like Johnson, you too might own securities of a company that no longer exists. But that doesn't mean they have no value. Companies change names through mergers or takeovers, yet their original certificates remain valid and can be exchanged for money or shares in an actively traded successor. Even when companies go out of business or declare bankruptcy, funds may be set aside in trust for investors.

DEAD ENDS. The problem lies in learning where the money is and how to collect it. The process may lead you to numerous dead ends, as Gilles Lalonde of Montreal discovered when he attempted to trace a penny stock he inherited in 1975. "There is no one place where you can look," says Massé, who helped Lalonde collect $38,000 this year for what was about a $2,000 investment in 12,000 shares of Naganta Mining & Development. Naganta had gone through a series of mergers and become part of Aur Resources, a company listed on the Toronto exchange.

Questions about a security's value often arise when someone inherits an old stock or bond certificate. The first thing to do is contact your stockbroker. B ten, brokers help with compl cases. The nex is to try a firm specializes in t obscure securiti

Collectibles a house R. M. S in New York (80 1880) will resea company for Massé's San based Stock S International 537-4523) char $60 fee in addi taking 30% o first $2,000 recovered ar of any higher amount.

For do-it-yourself sleuthing, you can check library for the 15 Rob Fisher *Manuals of Va and Worthless Secu* which date back to 192 other useful tome: *Fin Stock Guide Services tory of Obsolete Secu* published by Financial mation in Jersey City, N

Even if a stock is less, the owner has a shot at riches. The cert might turn out to be a tor's item. *Amy L*

Smart Money

A KEOGH NOW COULD MUZZLE THE TAXMAN LATER

For years, you've fed the company 401(k) plan. When you leave, the money will be all yours—and the Internal Revenue Service's. Your first thought may be to roll it over into an Individual Retirement Account. But say you have some sideline income this year. Then you can lessen the bite by opening a Keogh plan. (Do it by year-end, and you get a 1990 deduction even though you have until you file your 1040 to fund the Keogh.)

When you finally get your 401(k) money, roll it over into the Keogh instead of an IRA. "The Keogh has the advantage," advises benefits specialist Liz Buchbinder at accountants Ernst & Young in Washington. The money you withdraw after age 59½ from an IRA is generally taxed at your regular rates. But take your 401(k) money out of a Keogh in a lump sum, and you may use "special five-year averaging." This is the taxman's benign game of "let's pretend": The IRS lets you treat the money as if it went to five people who had no other income. That way, you pay mostly at the lowest tax rate, 15%.

MORE COMPLEX. Don't expect everyone, including 800-number clerks at mutual funds, to know of such tax-favored rollovers. But the law "absolutely" permits them, says Paul Gordon, tax chief at U.S. Trust. Just make sure your Keogh allows for a rollover when you open it.

Setting up a Keogh is more complex than opening an IRA. Avoid the money-purchase Keogh (table) unless you're sure your self-employment income will always be ample; once you pick a percentage to contribute, you have to stick with it each year. A profit-sharing version lets you reduce or even skip contributions. If yo come is fairly predict you might go for a p plan, made up of both t

At banks and bro you'll find a wide varie minimums. It takes $1,0 open a plan at T. Rowe P while Fidelity will settl $500, and Manufactu Hanover, only $50. A fees run the gamut, from zero to hundreds pending on whe you get persona investment-and-p work help: One b trust department a $100 setup fee, ly charges of $200 $6.25 per $1,000, $100 fees for f out the necessary nual IRS form.

Keoghs have catches, too, and you sh discuss the details wi lawyer. But then, who said running a pension is fun? *Dick Ja*

SIZING UP THE KEOGH FAMILY

Type plan	Maximum contribution*	Main benefit
PROFIT-SHARING	15%	Most flexible
MONEY PURCHASE	25%	Larger amount
PAIRED	25%	Some of both

*Of net self-employment income, up to $30,000 a year

DATA: FIDELITY DISTRIBUTORS CORP.

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Video

IS THAT A COLOR TV IN YOUR POCKET?

If a color TV set isn't your idea of a Christmas stocking-stuffer, you probably just aren't thinking small enough. A new generation of miniature color sets, some combined with videocassette recorders, can easily fit into—well, maybe not a sock, but a pocket or briefcase. Powered by alkaline batteries, they can provide you with pictures and sound anytime, anyplace.

Only an inch or two thick, the lightweight video-on-the-go sets from Sony, Casio, Sharp, and others have flat liquid-crystal-display (LCD) screens that range in size from 2.2 in. diagonally (about as big as a matchbook) to 4.9 in. (a playing card). But their minuscule size, compared with typical living room TVs that measure 19 in. to 31 in., doesn't mean any reduction in picture quality. The LCD screens are packed with tens of thousands of pixels, the dots that make up the picture. They provide sharp, detailed images in just about anything but direct sunlight.

Alas, a small screen doesn't necessarily mean a small price. Manufacturers say the high-tech screens have a high rejection rate, with only about 1 in 10 passing the quality test. So a set with a 3-in. picture can cost $300—or more if it has such features as on-screen tuning symbols, stereo sound, and AM-FM radio. A set that's combined with a VCR can run well over $1,000.

ON THE ROAD. Outdoors, most models can pull in VHF and UHF channels for four or five hours before the batteries give out. Indoors, you can use an AC adapter. And some sets plug into a car's cigarette lighter to let passengers watch TV while you drive.

Aside from conventional viewing, mini-TVs with in-and-out audio and video terminals can be hooked up to your camcorder. Then, instead of having to keep one eye glued to the black-and-white picture on the camcorder's tiny viewfinder, you watch the larger color screen during recording and playback.

CBM America, which makes Citizen TVs, sells a lightweight 4-in. monitor screen ($200) that cleverly mounts on the camcorder or connects to a billfold-size tuner ($70) to pick up TV broadcasts. For maximum miniaturization, the tuner and some of the smallest sets forgo a built-in loudspeaker, so you hear the audio with a headset. Some models have dual headphone jacks so two people can enjoy the show.

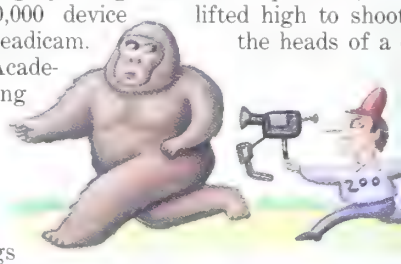
Shrinking a VCR along with a TV, both Sony and Panasonic sell combo units that let you watch a rented movie—or record one off the air—just about anywhere except in the shower. Sony's newest Video Walkman ($1,400), with a 4-in. screen and stereo sound, weighs less than three pounds and isn't much larger than a Princess phone. That's because the VCR uses 8mm tapes that can pack two movies on a cassette the same size as the familiar audio kind. *Twice*, an electronics-industry publication, says all but two major studios now release films on 8mm; 1,700 different tit available for rental or

Panasonic's com $1,299 A/V Pocket Watc el also has a 4-in. scree the VCR component use size VHS cassettes, so t weighs nearly five p and is as large as a computer. Like Sony' featured device, it can wired to a large TV to u regular VCR.

Bigger things are Next summer, Sharp fer the "largest ever" television screen. Its picture can be viewed f of four or five feet aw naturally, it will come w mote control. *Don*

SHOOTING AMERICA'S SMOOTHEST HOME VIDEOS

Hollywood cinematographers often keep their shots from shaking by using a 17-pound, $40,000 device known as the Steadicam. Developed by Academy Award-winning cameraman Garrett Brown, it allows a hand-carried camera to do such things as follow a fleeing figure down a narrow hallway or up a flight of stairs. Now, you can get the same kind of flowing, professional-looking shots by mounting your camcorder on a smaller, two-pound Steadicam JR.



Brown's ingenious V-shaped support for the camcorder is a precisely engineered amalgam of ball bearings, batteries as counterweights, and a 3½-in. TV screen that you watch instead of the usual viewfinder. It fits most compact models (not the full-size VHS kind) and lets the camcorder virtually float as you run, or ride. Designe one-hand operation, it lifted high to shoot the heads of a or held low to take a level shot of kids at The video screen tilts t you a full view of the being recorded.

At $595, the Steadic (800 955-5025) can be ticket to greater creati making videos. Be pre though, to spend some hours adjusting the de balance your particular corder and then experi ing with it. Holding the corder away from your and watching images viewing screen instea through the viewfinder a bit of practice.

Worth Noting

■ **HEAD START.** Businesses have only until mid-1992 to comply with the Americans With Disabilities Act. Employers can find detailed guidelines in the *Workplace Workbook*, $32 from Publications Dept., National Easter Seal Society, 70 East Lake St., Chicago, Ill. 60601.

■ **TAX TUSSLE.** At odds with the IRS? Consider paying part of the disputed amount—interest on unpaid taxes isn't deductible after 1990. But don't pay it all, say accountants Coopers & Lybrand, or you will lose the right to go to Tax C

■ **REEL TIME.** Timex' F watch for fishermen features a built-in cor and a thermometer for ing water temperature. dealer, call 800 FOR-TIM

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8	Standard Oil (Ind)
9	Standard Oil of Cal
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U S Steel
16	Phillips Petroleum
17	Sun

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- Key Telephone Systems
- Telephones
- Optical Fibers Cables
- Cellular Phones
- Radio Paging Receivers

OFFICE AUTOMATION (OA)

- Facsimiles
- Electronic Typewriters
- Electronic Cash Registers

COMPUTER PERIPHERALS

- Color Monitors
- Monochrome Monitors
- Printers
- LBP
- HDD/FDD

Semiconductors

CIRCUIT DESIGN AND PROCESSING OF SOPHISTICATED SEMICONDUCTORS

- DRAMs
- SRAMs
- NV Memory (EEPROMs, Mask ROMs)
- Specialty Memory (FIFO, VRAM, Cache Memory)
- Micro Products (MPRs, Chipset, RISC, MICOMs)
- Linear ICs
- CMOS Consumer ICs
- Standard Logic ICs
- Semicustom ICs (ASIC, ASSP)
- Discretes (TR, MOSFET, LD)

Computers & Systems

COMPUTERS

- PC XT
- PC AT
- 286 PC
- 386 SX DX PC
- 486 PC
- Laptop PC
- Notebook PC
- Workstations
- Super Micro Computers
- Mini Computers

SYSTEMS

- PC LAN
- PC Terminals
- X — Terminals
- Network Interface Units
- VAN
- Factory Automation
- Building Automation Systems
- Artificial Intelligence

Consumer Electr

COLOR TV

- 100" LCD Projectio
- Digital TV, ID ED H

VCR

- Hi-Fi VCR
- Multi-system VCR
- Double-Deck VCR
- Camcorder (8mm, Hi-8, VHS-F

AUDIO

- Hi-Fi Stereo Syster
- A/V Components
- CDP LDP DAT

HOME APPLIANC

- Microwave Ovens
- Washing Machines
- Refrigerators
- Air Conditioners
- Vacuum Cleaners

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Electronics

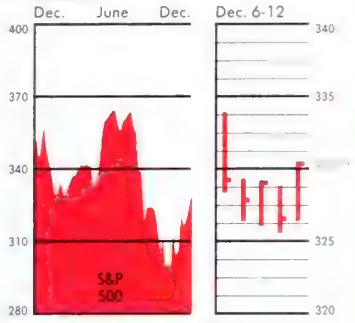
Technology that works f

nvestment Figures of the Week

MENTARY

ow, recession has displaced ideast as the financial mar- biggest concern. The bond is still enjoying a rally, but rates have the dollar under pressure. Oil prices fell an onal $2 a barrel during the to $25.35. The stock mar- ent most of the week in re- fearing recession would hurt gs more than lower interest would help. The week's spot: The battered Tokyo market rebounded nearly points, or 8.1%.

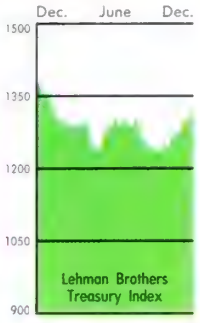
STOCKS



52-week change **–6.4%**

1-week change **– 0.1%**

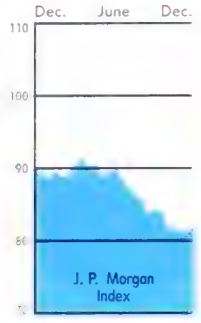
BONDS



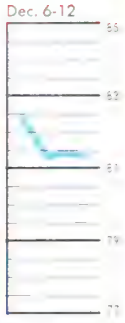
52-week change **–1.6%**

1-week change **– 2.5%**

THE DOLLAR



52-week change **–9.5%**



1-week change **–1.5%**

ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
JONES INDUSTRIALS	2622.3	0.5	–5.0
OMPANIES (Russell 1000)	171.1	0.0	–7.4
L COMPANIES (Russell 2000)	130.6	–0.1	–22.4
OMPANIES (Russell 3000)	180.6	0.0	–8.3

IGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
ON (FINANCIAL TIMES 100)	2165.8	0.6	–9.2
D (NIKKEI INDEX)	23,999.4	8.1	–36.9
NTO (TSE COMPOSITE)	3252.5	0.8	–18.8

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.1%	7.2%	7.9%
30-YEAR TREASURY BOND YIELD	8.1%	8.3%	7.9%
S&P 500 DIVIDEND YIELD	3.6%	3.7%	3.2%
S&P 500 PRICE/EARNINGS RATIO	15.1	15.1	14.6

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	328.9	330.2	Positive
Stocks above 26-week moving average	29.4%	27.2%	Neutral
Speculative sentiment: Put/call ratio	0.45	0.42	Positive
Insider sentiment: Vickers sell/buy ratio	0.38	0.38	Positive

DUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
MEBUILDING	30.5	–23.6	KAUFMAN & BROAD HOME	42.9	–36.4	8¾
PAREL MANUFACTURING	20.2	–14.9	RUSSELL	28.1	1.6	23⅜
SONAL LOANS	19.2	–30.6	HOUSEHOLD INTERNATIONAL	28.6	–41.3	30⅞
TELS AND MOTELS	18.7	–64.2	MARRIOTT	32.5	–61.2	13¼
MING	16.9	–22.2	GOLDEN NUGGET	24.2	–26.3	19¼

-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
NG-DISTANCE TELECOMMUNICATIONS	–16.9	–37.9	MCI COMMUNICATIONS	–36.7	–53.7	20¼
L ESTATE INVESTMENT TRUSTS	–14.0	–43.9	FIRST UNION REAL ESTATE	–31.4	–52.7	8¾
AND GAS DRILLING	–10.5	–7.8	ROWAN	–13.1	4.9	10¾
TURAL GAS DISTRIBUTION	–6.7	–13.7	ENSERCH	–12.9	–21.3	19⅜
LD MINING	–6.3	–27.8	ECHO BAY MINES	–28.7	–60.3	7¾

UTUAL FUNDS

MORNINGSTAR INC.

ERS

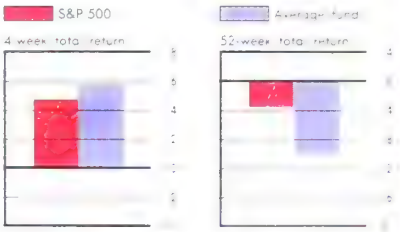
week total return	%
IFIED GROWTH	17.7
T ASSET ALLOCATION	15.8
FS LIFETIME EMERGING GROWTH	14.6

eek total return	%
DELITY SELECT BIOTECHNOLOGY	40.7
DELITY SELECT HEALTH CARE	24.4
NANCIAL STRATEGIC HEALTH SCIENCES	21.6

LAGGARDS

Four-week total return	%
STRATEGIC SILVER	–10.9
FINANCIAL STRATEGIC ENERGY	–10.5
THOMSON GLOBAL B	–9.8

52-week total return	%
SHERMAN DEAN	–47.3
STRATEGIC SILVER	–45.4
STRATEGIC INVESTMENTS	–45.4



ELATIVE PORTFOLIOS

DATA RESOURCES INC.

ir amounts
esent the present
e of $10,000
sted one year
in each portfolio

ntages indicate
day total returns

Money market fund	Treasury bonds	U. S. stocks	Gold	Foreign stocks
$10,681	**$10,643**	**$9,417**	**$9,152**	**$8,570**
+0.14%	+2.88%	+0.03%	–0.78%	+6.87%

ta on this page are as of market close Wednesday, Dec. 12, 1990, unless otherwise indicated. y groups include S&P 500 companies only; performance and share prices are as of market close Dec. 11. Mutual fund returns are as of Dec. 7. Relative portfolios are valued as of Dec. 11. A more detailed explanation of this page is available on request

KEEP THE U.S. RECESSION FROM GOING GLOBAL

With the U.S. economy slipping fast, the world suddenly faces the risk of a domino-effect recession, with one economy after the other falling until all are on their backs. The resulting collapse of trade and curtailed investments in the U.S. would prolong and deepen the American slowdown, which until now has been a largely home-grown financial recession (page 58). The rest of the world can best help by keeping up its growth while Washington makes the necessary domestic fixes.

That means Europe and Japan have to get their acts together, and the danger of a trade war must be avoided by resuming the General Agreement on Tariffs & Trade talks. The Bank of Japan mustn't do anything to unleash the same sort of financial implosion that's taking place in the U.S. It has to deflate overblown real estate values without causing a run on Japanese banks. Europe is still growing at around 2¼% a year, thanks to unification-driven growth in Germany. But there's a major stumbling block to sustaining this growth: The Deutschemark is considerably undervalued against other European currencies. As a result, Europe's other economies aren't growing as fast as they should be.

The way out of this problem isn't to attempt to browbeat Bundesbank President Karl Otto Pöhl into cutting rates but to hammer out a more realistic set of exchange rates—and quickly. Then other Europeans could cut their interest rates to bolster their weakening economies rather than prop up currency values with higher rates. As it is, the Frankfurt-based Bundesbank has raised the key Lombard rate only half a percentage point in the last year, even though it is rightly concerned that unification costs will push German government deficits to 5% of GNP. Unless other spending is pruned, those deficits threaten an inflationary time bomb.

The remedy is in Bonn with Chancellor Kohl's new government, not in Frankfurt. Once spending is cut, Pöhl can start chipping away at interest rates—especially if other Europeans swallow a depreciation of their currencies. The steps necessary to reinvigorate the world economy could be in place by the end of January: resumption of the GATT talks, a European monetary system realignment, trimmed German government spending, and a clear understanding at the January G-7 meeting about what the U.S. and Japan will do to mitigate the recessionary forces in their economies.

HOW NOT TO RUN A BOARDROOM

Lone Star Industries until recently was the nation's largest cement manufacturer. Today, its name is synonymous with the worst kind of corporate neglect. Lone Star is seeking Chapter 11 protection from creditors at the close of a long and dreary tale of inept management and shockingly generous executive perks (page 25). Chairman and CEO James E. Stewart, whose lavish lifestyle was dized by a $2.9 million expense account, has been rep

A question: Where were the directors while Lon lurched toward Gehenna? The panel is top-heavy with rate luminaries and includes the former chairman Democratic National Committee. What were they while Lone Star—and its shareholders—agonized? T swer is glaringly obvious: The board of directors ser cheerleaders—not as sorely needed watchdogs.

Unrestrained, Stewart was able to sell off the com most valuable assets in a shortsighted effort to boost and pay a dividend. Board members let Stewart set u ventures that made the company unappetizing to po acquisitors. They did nothing to curb his elaborate Only after BUSINESS WEEK revealed on Nov. 5 the det Stewart's expense account and disclosed that one member was given a New York hotel suite at co expense, were the directors roused to action. And alt the new CEO has repudiated Stewart's profligate spe the board was not so outraged that it expelled him fr ranks. Stewart keeps his seat on the board.

Lone Star Industries may yet emerge from the ashe does, the company will remain a living monument to rate management run amok—and a board of director did nothing until it was too late.

SOWING SEEDS IN CHINA

President Bush has the right China policy, but stumbled badly putting it into practice. A m months after the Tiananmen Square massacr the subsequent worldwide effort to isolate China, Bus with Chinese Foreign Minister Qian Qichen (page pursuit of concerted international action in the Persian But the meeting, which lent credibility to Beijing's des Communist leaders, actually encouraged further crack on domestic dissidents. Bush traded away the mora ground in exchange for China's abstention on an an resolution before the U.N. Security Council.

That said, we continue to believe that U.S. econor volvement with China is sound. There are profit-mot reasons, of course. Stability throughout East Asia de on a U.S. relationship with Beijing. And the prese market-oriented economic activity shows the Chinese that viable alternatives to centralized state planning Another factor makes it doubly important that the have a presence in China: The discredited Marxist ger racy in Beijing is losing its grip on much of the coun coastal provinces chart their own economic policies. Deng Xiaoping and his contemporaries die, a long an nizing search for a new, post-Communist order will f

The Chinese leadership cannot filter out what their gandists term the "contamination" of Western social free market theory, and democratic principles that acc ny our presence. These are seeds that could shape C future. We should concentrate on that long-term without cozying up to the despots currently ruling B

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SURPRISE!
THE BULLS ARE BACK

Bonds

ARE BIG GAINS
STILL AHEAD?

Funds

THE WINNERS IN
A TOUGH YEAR

Plus

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FOR 900 COMPANIES

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All the stats you need about 900 companies

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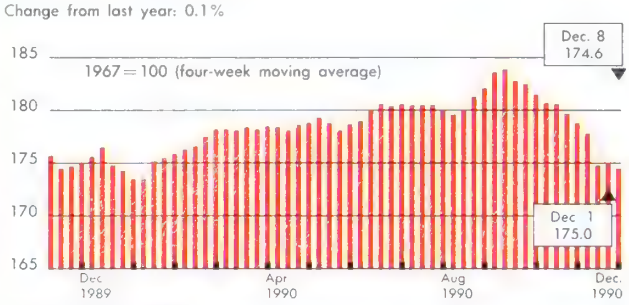
BusinessWeek Index

PRODUCTION

Change from last week: –0.2%
Change from last year: 0.1%

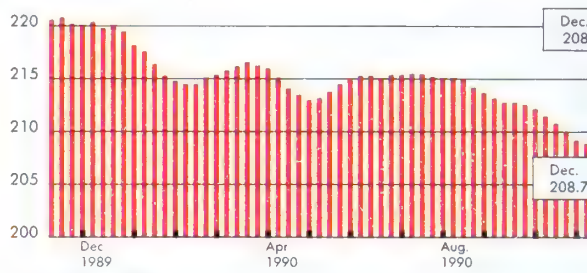


The production index decreased during the week ended Dec. 8. On a seasonally adjusted basis, output levels of rail-freight traffic, crude-oil refining, autos, trucks, and paper all declined. Lumber production was up sharply, and increases were also posted in electric power and paperboard output. Coal production was unchanged from the previous week. Before calculation of the four-week moving average, the index dropped to 176.1, from 178.5.

BW production index copyright 1990 by McGraw Hill Inc

LEADING

Change from last week: –0.1%
Change from last year: –5.3%



The leading index continued its decline, edging lower for the week ended 8. A steep decline in materials prices, along with slower growth rates in real e loans and M2 offset a gain in stock prices and a drop in long-term bond yields number of business failures was virtually unchanged for the week. Before calcul of the four-week moving average, the index decreased to 207.3, from 206.7 i previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (12/15) thous. of net tons	1,700	1,787 #	1.6
AUTOS (12/15) units	124,726	115,474r #	–12.1
TRUCKS (12/15) units	60,149	65,695r #	–22.3
ELECTRIC POWER (12/15) millions of kilowatt-hours	55,507	55,739 #	–8.0
CRUDE-OIL REFINING (12/15) thous. of bbl./day	12,753	12,780 #	–7.1
COAL (12/8) thous. of net tons	21,730 #	21,182	5.4
PAPERBOARD (12/8) thous. of tons	771.7 #	764.6r	7.2
PAPER (12/8) thous. of tons	776.0 #	789.0r	6.3
LUMBER (12/8) millions of ft.	466.8 #	426.2	–16.3
RAIL FREIGHT (12/8) billions of ton-miles	20.9 #	21.4	3.0

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (12/19)	134	132	143
GERMAN MARK (12/19)	1.48	1.48	1.72
BRITISH POUND (12/19)	1.93	1.95	1.62
FRENCH FRANC (12/19)	5.05	5.02	5.86
CANADIAN DOLLAR (12/19)	1.16	1.16	1.16
SWISS FRANC (12/19)	1.27	1.26	1.55
MEXICAN PESO (12/19)[3]	2,930	2,926	2,675

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (12/19) $/troy oz.	378.900	370.900	–8.1
STEEL SCRAP (12/18) # 1 heavy, $/ton	106.00	106.00	9.8
FOODSTUFFS (12/17) index, 1967 = 100	210.3	211.2	–1.3
COPPER (12/15) ¢/lb.	114.4	116.0	6.6
ALUMINUM (12/15) ¢/lb.	70.0	70.3	–5.3
WHEAT (12/15) # 2 hard, $/bu.	2.80	2.79	–35.8
COTTON (12/15) strict low middling 1-1/16 in., ¢/lb.	70.29	68.69	15.0

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	%
STOCK PRICES (12/14) S&P 500	328.34	327.44	
CORPORATE BOND YIELD, Aaa (12/14)	9.03%	9.13%	
INDUSTRIAL MATERIALS PRICES (12/14)	99.7	100.5	
BUSINESS FAILURES (12/7)	328	330	
REAL ESTATE LOANS (12/5) billions	$384.0	$383.8	
MONEY SUPPLY, M2 (12/3) billions	$3,319.7	$3,322.3r	
INITIAL CLAIMS, UNEMPLOYMENT (12/1) thous.	471	435	

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR ally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	%
CONSUMER PRICE INDEX (Nov.)	133.8	133.5	
HOUSING STARTS (Nov.) annual rate, thous.	1,129	1,033r	
INDUSTRIAL PRODUCTION (Nov.) total index	107.5	109.4r	
CAPACITY UTILIZATION (Nov.)	80.9%	82.4%r	

Sources: BLS, Commerce Dept., Federal Reserve

MONETARY INDICATORS

	Latest week	Week ago	%
MONEY SUPPLY, M1 (12/3)	$819.0	$825.6r	
BANKS' BUSINESS LOANS (12/5)	318.7	317.5r	
FREE RESERVES (12/5)	392	874r	
NONFINANCIAL COMMERCIAL PAPER (12/5)	147.7	147.7	

Sources: Federal Reserve Board (in billions, except for free reserves, which are expres a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	
FEDERAL FUNDS (12/18)	7.37%	7.05%	8
PRIME (12/19)	10.00	10.00	10
COMMERCIAL PAPER 3-MONTH (12/18)	7.79	7.44	8
CERTIFICATES OF DEPOSIT 3-MONTH (12/19)	7.57	7.52	8
EURODOLLAR 3-MONTH (12/12)	7.58	8.01	8

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equi
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

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way that s

everyone

from everyone's office. In a

car, this routine might qui

come tiresome.

Of course, that's p

why the Lexus LS400 was

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e mundane.

For while any car can be
ıed to battle the masses, the
0 was also designed to please
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Readers Report

SILICON VALLEY ISN'T BUILT ON JUNK

Paul Craig Roberts writes: "Junk bonds played a major role in financing computer-industry expansion in the '80s" ("Sure, Milken's sentence will serve as a deterrent—to innovators," Economic Viewpoint, Dec. 17). Not true. For several decades, many rapidly growing technology companies, including Compaq, have used convertible debenture financing. These instruments carry relatively low yields and are considered quasi-equity securities, making their low debt ratings moot. To credit the high-yield junk bonds pioneered by Michael R. Milken and Drexel Burnham Lambert Inc. with a role in the success of the computer industry is a gross distortion. In fact, from personal experience, quite the opposite is true.

In 1984, our second year of operation, Compaq shares were trading in the low single digits, even though our sales that year were tripling, to more than $300 million. I contacted Drexel Burnham regarding junk-bond financing. We were immediately turned down because, in their words, "the personal-computer business is too risky." So much for the Drexel/Milken/junk-bond myth of financing high-risk growth companies.

Epilogue: In early 1985, L. F. Rothschild, Unterberg, Towbin successfully sold a Compaq convertible issue, and today we enjoy sales in excess of $3 billion with record profits.

Benjamin M. Rosen
Chairman of the Board
Compaq Computer Corp.
Houston

MILKEN IS TAKING THE FALL FOR HIS OWN GREED

Federal District Court Judge Kimba M. Wood should be applauded for her harsh sentencing of Michael Milken ("Milken is taking the fall for a 'decade of greed'," Top of the News, Dec. 10).

No, Milken didn't kill anyone, but the anguish and heartbreak he caused by his rapacious practices have surely shortened the lives of those he has affected.

In earlier days, the judgment on pirates was to be hung from the ne yardarm. Michael Milken deserves sympathy. Bravo, Judge Wood.

Thomas Joseph Sc
West Chicag

Mike Milken gets a 10-year p sentence which means, a worst, he will be in jail for five ye

His personal wealth is estimat $700 million.

So, if he serves five years (an un event) he will be earning $3,932 a for the fruits of his efforts in hi nance. After this, can anyone eve again, with a straight face, "crime not pay"?

Ed
Piedmont,

FRANK LORENZO ON THE LORENZO LEGACY

To read your piece, you would that all we did during my tenur issue debt for dubious projects Lorenzo legacy haunts Continental, of the News, Dec. 17). Unlike the a itive companies in the 1980s that overpriced acquisitions with debt s to be big, Continental Airlines gr order to be able to compete agains megacarriers that we knew we have as competition after deregul And at that, the acquisitions were sonably priced, even by today's dards, and financed mostly with e

Continental certainly added debt the debt principally went for rout strategic development of the con and new aircraft, as well as our s improvement, infrastructure dev ment, and to finance the losses were part of the building process.

The strategic development of the pany, costing hundreds of millio dollars, is what now gives Contin promise—particularly the comp valuable hub structure and P routes franchise. Billions of dollars also spent on upgrading the comp fleet of aircraft, giving Continent day one of the most modern fleets business.

Comparisons with American Air and United Airlines' balance sheets at best, misleading. These compani

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ed at deregulation's doorstep with
assive assets and financial resources
d continue today to have enormous
sh flows, so they didn't have to incur
bt for many of their critical needs. We
uld have loved to build our airline
thout incurring debt or diluting equi-
—which we did many times—but we
n't have the luxury.

This past summer, as I was leaving
ntinental, most observers saw the
npany as being able to prosper in the
ure, despite its debt load, particularly
en the strong backing of SAS and the
dership of Hollis Harris—a well re-
ded industry professional. However,
drying up of credit markets for all
the strongest companies, coupled
h the advent of the recessed condi-
ns that we are experiencing, as well
the enormous increase in fuel costs,
ved to be too great a burden for the
npany's cash flow. Hence the need to
tructure the company's financial obli-
ions.

There is a legacy at Continental from
time, and it's one of which our 37,000
ployees and I can be proud. It is of a
npany entirely created by our com-
ed hard work that is today poised to
one of the survivors of this tumultu-
period, given a workable balance
et and a little time.

Frank A. Lorenzo
Houston

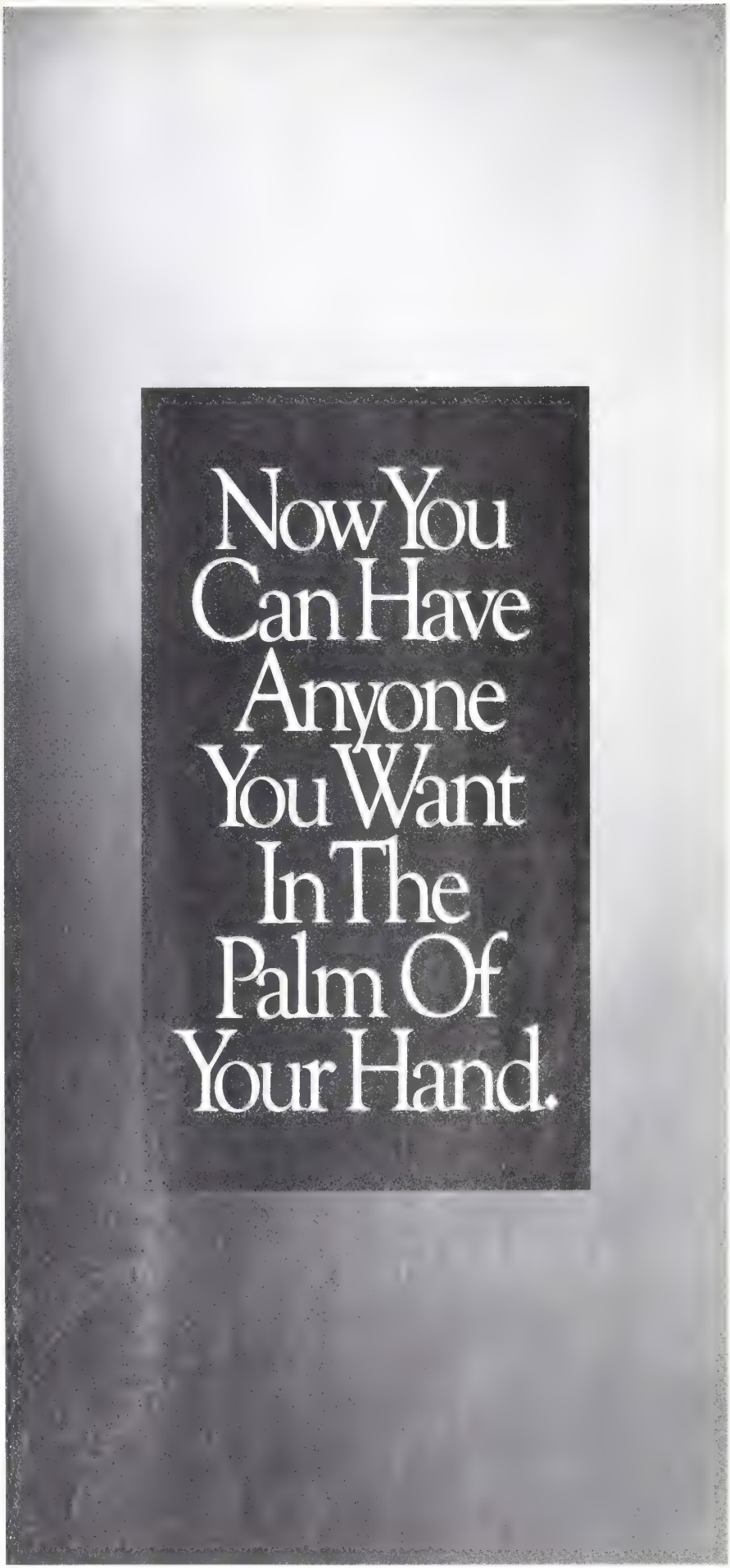
N AMERICA COMPETE? TES PRO AND CON

is widely held that one of the keys to
evitalization of American industry
be empowerment—giving employees
and active participation in decisions
t affect their work ("Can you com-
e?," Cover Story, Dec. 17). However,
will not achieve economic reform un-
s we also empower our citizens at the
lot box. The 36% voter turnout in the
vember elections suggests we are a
g way from reaching that goal.

Our economic decline can only be re-
sed by enacting governmental-pro-
s reforms, such as term limitations
strict campaign-finance laws, that
foster greater voter participation
discussion of the issues. Only by
powering people politically will we be
e to fully mobilize "the human capi-
" you so eloquently describe.

Gary Spizizen
St. Louis Park, Minn.

"You can feel America's eroding sta-
tus in your bones," says Karen
mar ("Yes, we're down. No, we're not
," Cover Story, Dec. 17), then con-
les, "there are no easy solutions . . .
there are solutions." I suggest our
e has run out, there are no solutions.
ince swords first won empires, peo-



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Readers Report

CORRECTIONS & CLARIFICATIONS

n "Can you compete?" (Cover Story,)ec. 17), a table misstated the number f American Honda Motor Co.'s U.S. mployees; the correct number is 3,000. A caption misidentified a day are center in Wilmington; the correct ame is Girls Inc. of Delaware.

e have risen from nowhere to great wer, then fallen back again as if rid- g a tide in world history. Up and down ch rides, unaware—until the fall—that und-trips only take a century or two. es, from Babylon to Britain, on aver- e, that's all.

The American ride is now more than a ntury old. It took off in the post-Civil ar days of Bell, Ford, and Edison; ced ahead through two world wars d the Great Depression; peaked in the ennedy/Johnson years; and—despite ffing and puffing in Reagan's roaring)s—has been heading downhill ever ice.

The end of the Pax Americana reign, I am right, won't be a big loss to mankind; after all, a century was only e first lap of the record Pax Romana llenium. Still, it's a nice ride, on a par th Portugal (1400-1500), or Spain (1500- 00), or perhaps Babylon (2300-2200 C.), about as good as your typical su- rpower in 10,000 years of civilization.

Henry Fogel
Lexington, Mass.

WARY OF THOSE 'ATCH LISTS'

The purpose of this letter is to address the unfortunate reference to y company and several others as "in- rers to be wary of" ("Why insurers en't the S&Ls of the 1990s," Finance, ec. 10). Companies are placed on the atch list" by A. M. Best & Co.

In the areas of liquidity and leverage, erchants & Business Men's Mutual is excellent shape. Our investment port- lio is of very high quality and tends to ve a shorter-than-average maturity hedule. Our premiums written to sur- us ratio will be under 2 to 1 at year- d. Our reinsurers are all domestic car- rs rated A or better by A. M. Best. It eds to be understood that A. M. Best l not find M&B lacking in any way in ese two key areas.

The area of profitability is one in hich we have been having some diffi- lties during the past few years; how- er, our loss ratio has shown improve- nt throughout 1990 and, while it is t likely that we will produce an under- iting profit by yearend, it is very like-

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Readers Repor

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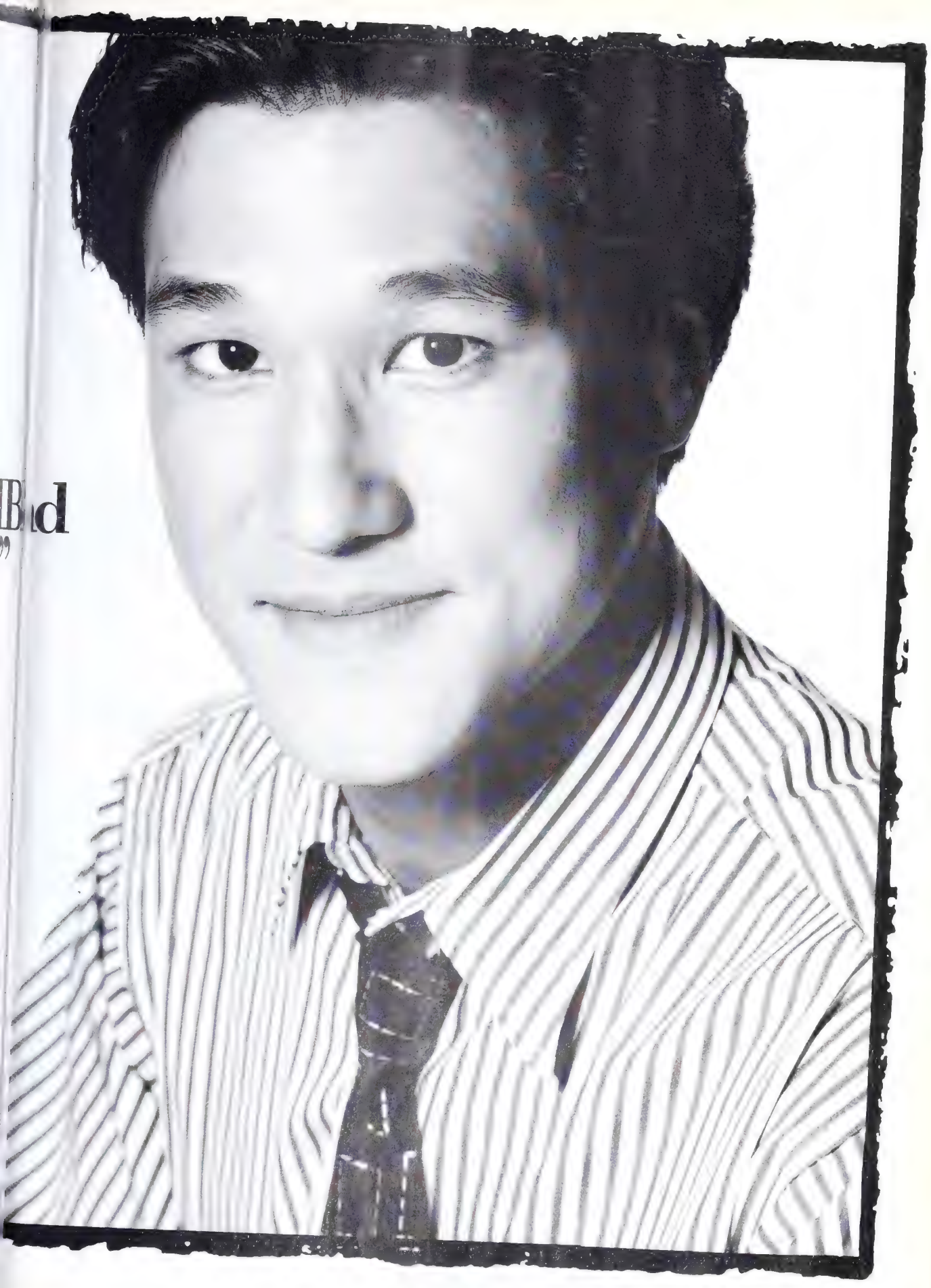

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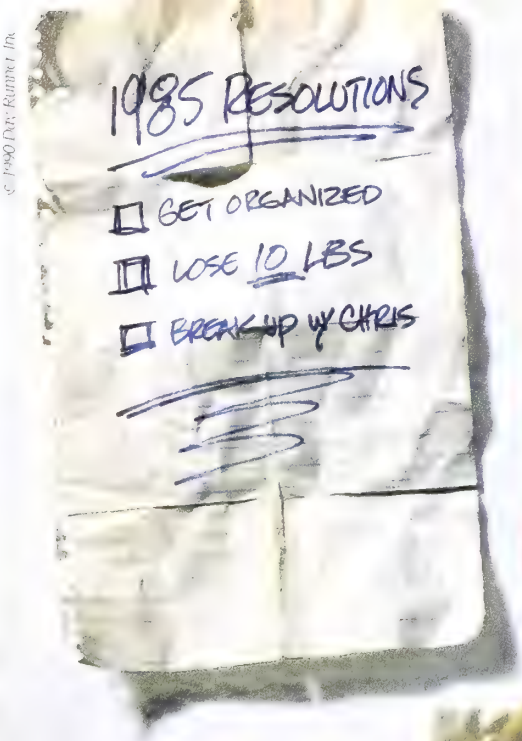

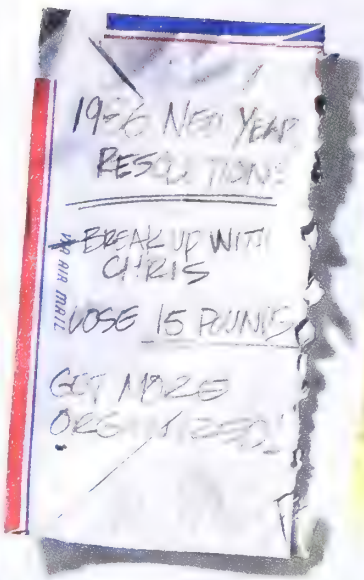

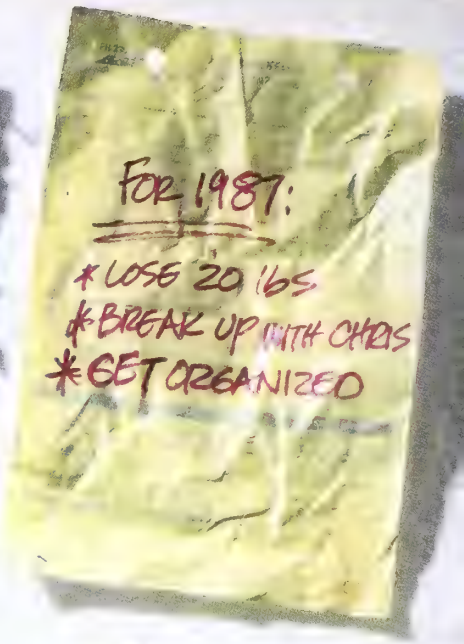

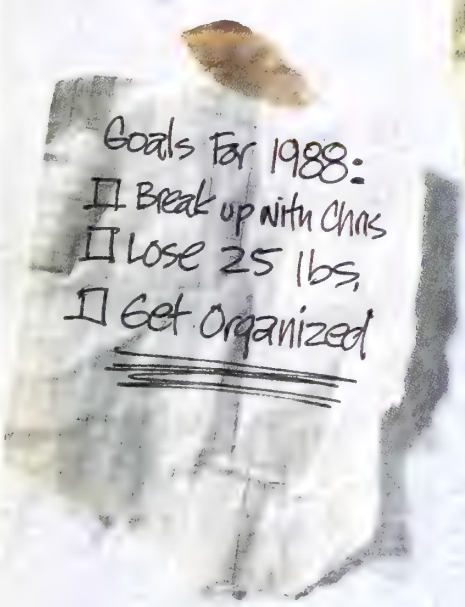

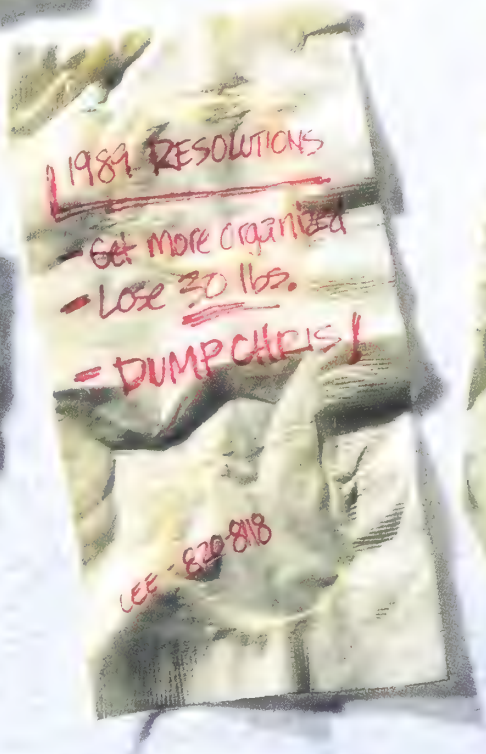

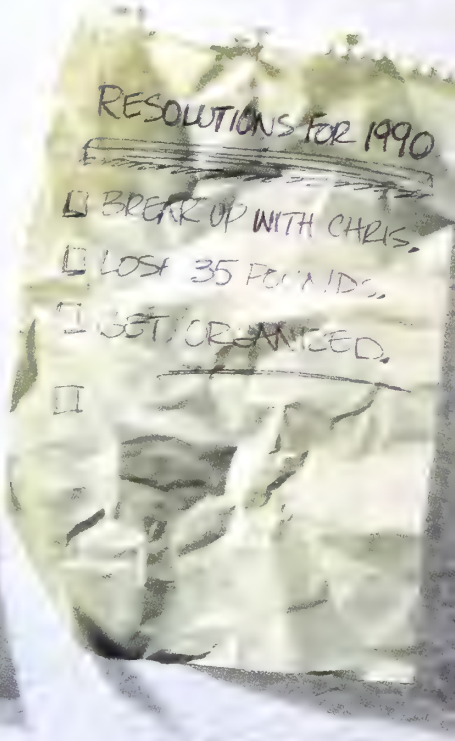

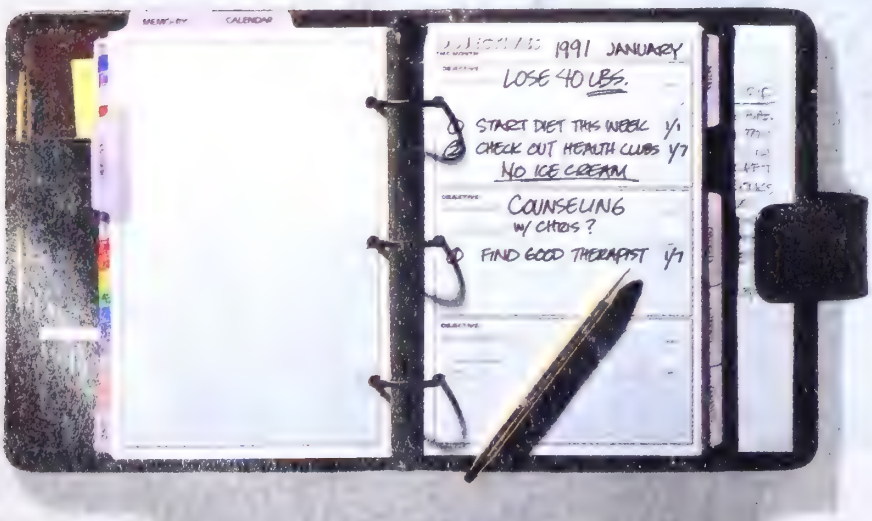

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UNEQUAL EQUITIES
By Robert Zielinski & Nigel Holloway
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VHY SUCCESS WON'T SPOIL APAN INC.

s Japan a unique society that will always possess special economic, political, and cultural rules? Or as the panese grow stronger, are they inevbly evolving toward a Western mod-

This is one of the most important pates about Japan, and it has raged decades. Washington's view has long n that, given time, Japan will naturaldevelop the same oblems that have gued the U. S. and tain, such as excese consumption, finan- instability, and a axed work ethic. Ja-'s competitive chalge will thus take e of itself.

But in the late 1980s, ne Japan-watchers in U. S. began focuson how Japan is difent, even arguing t Japan represents a que form of capitalm. To respond to this r-growing challenge, y argued, the U. S. st adopt a strategy t goes beyond the ditional free-market proach. Adherents of s view have been nded heretics by top S. policymakers.

Now come three persuasive books t flesh out our understanding of how pan's business culture, industrial ucture, and financial system are difent from the American and British dels—and why they are likely to rein that way. In particular, the books nonstrate that Japanese companies, part of industrial groups called *keiru,* benefit from deeper, longer-term ations with each other and their finan- supporters than their Anglo-Saxon npetitors could ever hope for. In the phrasing of T. W. Kang, author of *ishi: The Foreign Company in Jan,* Japanese companies believe in ght coupling," whereas American npanies are only "loosely coupled."

Moreover, Japan's financial structure, sharp contrast with Wall Street, is l dominated by a system of stable areholding with power concentrated in the hands of the *keiretsu* and large banks and brokers. They do not invest merely for quick return but also for such strategic goals as securing access to technology and distribution channels. Top Finance Ministry bureaucrats privately term Japan's system "managerial capitalism," distinguishing it from the "shareholder capitalism" that they think has sapped America's economic vitality.

Rivals beware: Japan's unique strain of capitalism is unlikely to fall prey to the problems plaguing the West

Japanese executives are insulated from shareholder pressure for higher earnings, which has long driven U. S. capitalism. As W. Carl Kester states in *Japanese Takeovers: The Global Contest for Corporate Control,* Japanese managers see their role as creating growth to benefit a coalition of "stakeholders"—including suppliers, employers, backers, and Japan itself. This is the best explanation yet of the Japanese preoccupation with growth at any cost.

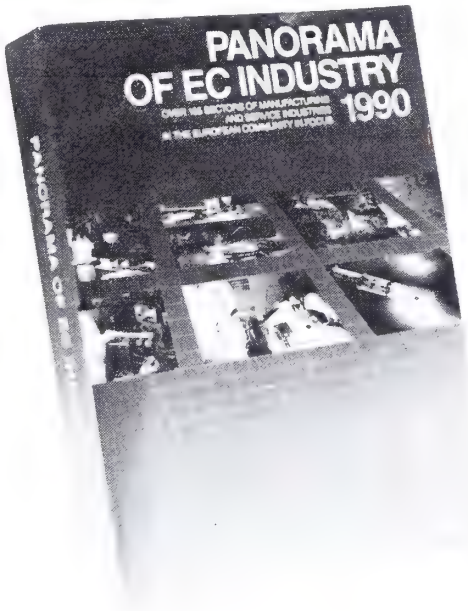
What would a *keiretsu* look like in America? In *Unequal Equities: Power and Risk in Japan's Stock Market,* Robert Zielinski and Nigel Holloway write that IBM would have Chemical Bank as its main financial backer and Texas Instruments Inc. as a partly owned, guaranteed supplier of semiconductors. In a full-fledged *keiretsu,* IBM would also have big stakes in Bethlehem Steel Corp. and Du Pont Co. Because of its friendly relationship with suppliers, bankers, and customers, IBM would not have to offer investors a high rate of return, and its suppliers would accept lower profits. Zielinski and Holloway estimate that IBM could report earnings of $2 billion a year rather than $5 billion, and could spend the difference on equipment and research. One doesn't need an MBA to understand how that would unleash IBM's competitive fury. Small wonder the Japanese aren't eager to break up their system and move toward what they see as a failing model.

Gaishi author Kang, a Japanese-born Korean who is system group general manager of Intel Japan, has an irritating propensity to boast about his travels and expertise. But he offers penetrating insights. Japan's strategy toward the West has been to "take just the good parts," he writes. "The Japanese have been able to absorb foreign knowhow without its underlying thought process and cultural values, and thus have maintained intact their principal values." So strong are the alliances among Japanese companies, says Kang, that though foreigners may become "semi-insiders," the Japanese market will never truly open.

Aside from his broader observations, Kang gives practical advice on cracking the Japanese system. There have been many books on *gaishi,* or foreign companies in Japan, most prominently Robert C. Christopher's *Second to None.* But Christopher is a journalist. Kang, as a practitioner, has a sharper, more realistic focus. A company's commitment must start at the chief executive level, he says, and the CEO must recognize that Japan isn't another international market in which one can "dabble." The approach that's required affects how the company as a whole does business. Personnel at headquarters and in the Japanese sub-

Success in business in Europe

depends on the decisions you make
. . .which depend on the information you receive



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sidiary must be trained and rotate
a "hybrid" style of operating and
sion-making created to accommodat
ployees from both cultures.

Both *Japanese Takeovers* and
equal Equities have already beer
dered slightly out of date by the sp
ular decline of the Tokyo stock m
this year and the sharp increase in
est rates, which have taken the edg
Japan's capital-cost advantage. But
underlying explanation of Japan's
trial and financial structure is still

Kester, an associate professor of
ness administration at Harvard bus
school, is overly academic and discu
at times, but he offers a brilliant
sis of Japan's merger-and-acquisiti
tivity. There are strains in the
system because industrial compani
longer depend as heavily on ban
their *keiretsu* for funding, and
banks are weaker relative to other
ers. But Western-style raids, says
ter, are not destined to crack the
etsu—a point T. Boone Picke
learning the hard way as he tri
acquire a company in the Toyota g

Kester argues that the Japanes
never let their companies be sol
The stable shareholders in a tar
company may use a takeover thre
discipline a lagging company, but
won't let control slip out of their h
"The final outcomes will be car
and deliberately orchestrated by, a
the advantage of, preexisting, stabl
porate stakeholders," writes Keste

The implication is that the W
engaged in a contest in which Jap
companies have carte blanche to ac
U.S. and European companies,
those companies can't acquire Jap
targets with the same ease. This t
ens the independent ownership of
foreign corporations, Kester concl

In *Unequal Equities*, Zielinski, a
rities analyst based in Tokyo,
Holloway, the business editor of
Eastern Economic Review in
Kong, also document the resilien
the *keiretsu*. Many are descendan
the prewar *zaibatsu*, conglomerate
General Douglas MacArthur tri
break up. They were given a new
but today, the top six *keiretsu* own
of all shares traded on the Tokyo
Exchange—the same percentage he
the six largest *zaibatsu* in 1945.

With such insights becoming
able, Americans should go beyond
ing whether Japan is fair or unfair,
or not. The more important point is
the Japanese system, while simil
ours in some ways, harbors basic d
ences. The real barriers in Japa
institutional, attitudinal, and cul
and they cannot be negotiated awa

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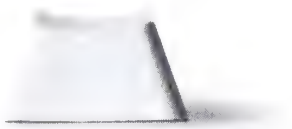

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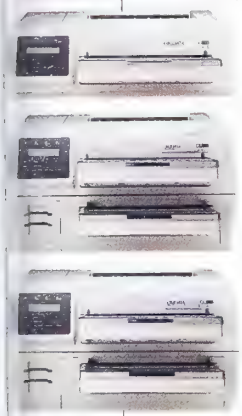
The performance promise behind the Okidata OK is the reason we had to re-invent the conventional laser printer. Our engineers frankly rejected the industry-standard page printer technology of laser beams, lenses and rotating mirrors. Instead, they designed and built a proprietary, solid-state LED printhead with no moving parts. It's a printing system so trouble-free, we guarantee our LED print element for 5 full years—making it by far the longest warranty in the industry.

PC MAGAZINE EDITORS' CHOICE June 12, 1990 Okidata OL400



But reliability isn't the only advantage our unique printhead offers. It also means a simpler design, resulting in a straight-line paper path that's far less likely to jam—even when feeding heavy stock, envelopes, or labels. And, since we build it ourselves, it means something else—a lower cost.

The OL400: The Only $999 Page Printer.

Our 4 ppm OL400, for example, has the lowest list price of any page printer on the market: only $999.* Yet that price gets you a printer that earned a PC Magazine Editor's Choice Award, with standard features—extra fonts, a full 200-sheet paper tray—that you won't find on a LaserJet® IIP selling for hundreds of dollars more. Plus a slim, low-profile design that's less bulky on a desktop.

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And the OL400 isn't the only Okidata LED page printer to offer outstanding value. For applications where greater speed is needed, the OL800 delivers 8 ppm with all the advantages of the Okidata LED printhead: straight-line paper path, 5-year printhead warranty, and a low $1499 list price.

Like all our LED page printers, the OL800 emulates HP® Series II for compatibility with most popular software; with its speed and selection of resident type fonts, it can handle the printing needs of a whole work group. What's more, as your applications change and your needs grow, a simple upgrade kit turns the OL800 into either a font-scaling OL820 or a PostScript®-compatible OL840.

The OL820: Smarter Than a LaserJet III.

The OL820 earned the Okidata OK by learning how to do font-scaling on the fly. Thanks to a special chip our engineers designed into the 820, it can solve complex type-sizing and positioning problems instantly—problems the LaserJet III needs to talk to its software to work out. That means the OL820 can deliver up to three pages of sophisticated text while the LaserJet III is still working on its first page.

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And for applications that require full Adobe PostScript® compatibility, our OL840 delivers it in spades. It's ready to connect to any PC or Macintosh® system, or to both at the same time—then switch between systems with the push of a button.

The Okidata OK. It's a promise that makes our job—to design and manufacture a line of page printers offering both outstanding value and performance—a hard one.

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time to stop hoping the Japanese make the mistakes the West has a start shaping a broad economic resp to the challenge their system prese

BY WILLIAM J. HOLS

Associate Editor Holstein is the auth The Japanese Power Game: What It M for America

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James P. Womack, Daniel T. Jones & Daniel Rawson Associates • 323pp • $22.50

In this century, America's w grew from its manufacturing ar dustrial might. Nowhere was more evident than in automobiles, w mass production, as pioneered by H Ford and refined by Alfred Sloan, planted less-efficient craft producti

Today, says *The Machine Changed the World*, mass producti being surpassed by a new approa "lean production." The authors, ates of Massachusetts Institute of nology's International Motor Ve Program, say lean production uses the human effort, half the investme tools, and half the engineering h Although pioneered by Toyota M Co., the technique doesn't depend o tural factors and is already spreadi non-Japanese companies. The au buttress their case for it with stati comparisons from a five-year, $5 m study of auto companies worldwide

Lean production uses highly tr employees at every stage and involv painstaking approach to details. vastly different from mass produc which involves simplifying each ta mindless routine, while relying o mies of supervisors to limit defects

This is the best current book o changes reshaping manufacturing the most readable, too, though at t it verges on being too academic. chapter on how the method evolve Toyota conveys a very human sens managers constrained by limited sources yet trying to do better.

Only when they speculate on run a lean enterprise globally do the au stumble. Their belief that Japanese panies may overtake Western mu tionals in spreading a single corp culture has no basis in Japanese co nies' mostly miserable record in inte ing non-Japanese employees. Anoth their forecasts is more plausible: the triumph of lean production will as much opposition, political and p cal, as mass production did in its d

BY JAMES B. TR

Graham Hawkes opens the last frontier

Innovative and reliable Parker motion-control technology helped man reach the moon. It was also at work when Graham Hawkes successfully dove 3,000 feet – man's deepest solo ocean dive – into the last frontier: the sea.

Pioneering the technology to harvest the wealth of the sea, Hawkes and his team from Deep Ocean Engineering have created *Deep Flight* – an innovative exploration vehicle for the sea. *Deep Flight* adapts modern aerospace technology that allows submersible vehicles to soar under water much as aircraft soar into the sky.

Hawkes and his company specify Parker's highly reliable valves, connectors, and hoses for their unique submersibles, which propel themselves to depths as great as seven miles down into the water. Parker was Hawkes' logical choice because the company's motion-control expertise spans aerospace, marine, industrial, and automotive technologies.

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For Parker's fiscal 1990 annual report, write: Parker Hannifin Corporation, Dept. BW-12, 17325 Euclid Avenue, Cleveland, Ohio 44112-1290. For product information, customers may call 1-800-C-PARKER.

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CAN CONGRESS MAKE THE BUDGET STICK? DON'T BET ON IT

ALAN S. BLINDER

Despite the storm of criticism, the budget agreement was, on balance, a good thing. Too bad there's so little reason to believe the government will honor its own commitment

ALAN S. BLINDER IS THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR OF ECONOMICS AT PRINCETON AND THE AUTHOR OF *HARD HEADS, SOFT HEARTS*

The 1990 budget debacle had a distinctly Marxist flavor: It reminded everyone of Groucho, Chico, and Harpo. Now that the dust has settled, however, America can have the debate it should have had earlier. My personal view is that the budget agreement was, on balance, a good thing. But critical charges and countercharges are already appearing in the media: Some claim the agreement failed to reduce the deficit; others argue that the spending cuts are phony. Let's begin by getting some numbers straight.

The deficit limit for fiscal 1990 under Gramm-Rudman-Hollings II was $100 billion. But when the year ended on Sept. 30 with a deficit of $220 billion, GRH-II was history. So, in scoring this year's handiwork, $220 billion is the right place to start. After much political agony and comedy, Congress and the President agreed on a comprehensive package that allegedly will trim the deficit by almost $500 billion over five years. Yet the Congressional Budget Office now predicts a deficit of $320 billion or more in fiscal 1991. What's going on?

Plenty. First, the package is backloaded: The $500 billion reduction over five years means, according to CBO estimates, $35 billion in fiscal 1991 growing to $163 billion by 1995. If that sounds like political cowardice, it should. But sometimes lack of valor is the better part of discretion. With the economy stumbling into recession, we don't need a huge fiscal contraction right now. In fact, if the government had any credibility left, an even more backloaded package would have been welcome. Large deficit reductions credibly promised for the future would let long-term interest rates decline without draining spending from today's economy. Too bad the government destroyed its budgetary credibility years ago.

Second, the new budget law removes the Social Security surplus from the deficit calculation. If we put it back in, the alarming $320 billion deficit falls to $253 billion—still $33 billion over last year's. Third, the 1991 economy looks a good deal weaker than the 1990 economy; that factor alone would add roughly $45 billion to the deficit. The structural deficit, unaffected by cyclical ups and downs—which is the deficit that matters most—will actually fall by about $12 billion.

MAKING GOOD. In an economic sense, however, Congress actually did much better than that. Spending on the thrift-industry cleanup is expected to be $33 billion higher in fiscal 1991 than in 1990. But no net fiscal stimulus will result because, by making good on its insurance pledge, the government is merely giving depositors what they already had. Another way to see the point is to note that every dollar the government borrows through the Resolution Trust Corp. is immediately returned to the capital markets. Excluding RTC operations, the reduction in the economically relevant deficit would be about $45 billion—not a bad year's work.

Critics who charge that spending was not really reduced have a point. The CBO estimates that fiscal 1991 spending will be just enough to maintain programs at 1990 levels, after allowing for inflation, population growth, and the like. After that, however, the law will require cuts in programs to stay within the various spending caps. Excluding the RTC, spending is estimated to drop from 22.4% of gross national product in 1991 to 20.1% in 1995.

Will Congress stick to its plan for five years? You wouldn't want to bet on it, though Rube Goldberg himself could not have bettered the new enforcement procedures, with their 12 types of sequester.

TIGHTENING CORSET. To start, the budget is divided into two big pots. The first contains all discretionary spending—the items that must be enacted each year—and is in turn subdivided into three potlets: for defense, international, and domestic accounts (the subdivisions are removed after fiscal year 1993). Each potlet—or the whole pot after 1993—is subject to its own automatic cutbacks if Congress exceeds the legislated cap in that particular category. For example, defense overruns require defense cuts, and holding defense spending below its cap does not free funds for domestic programs. The spending corset is loose at first, as the critics claim, but grows tighter after the 1992 election (what a coincidence!). Moreover, the caps will be adjusted if inflation exceeds Administration forecasts (as seems likely). They also exclude increases in Operation Desert Shield and can be raised in an emergency.

The second big pot contains all revenues plus spending on entitlement programs. The new budget law prohibits tampering with this pot in ways that increase the deficit. Thus, for example, a legislated increase in unemployment benefits would have to be paid for by, say, a tax hike or a cut in farm subsidies. Importantly, the law now focuses on the structural deficit. So Congress doesn't have to make up for revenue losses from recession.

For this giant step toward rationality, praise is due—as it is for getting over the Clint Eastwood approach to taxes and for ending the balanced-budget fetish. The big question, of course, is whether Congress will obey its own law this time. Alas, based on reading history, not lips, the big answer is no. ▣

"DEAR MR. IACOCCA, AFTER DRIVING ONE, I NOV BELIEVE YOUR CARS AND YOUR COMMERCIALS

Like many Americans, Mr. Larry Bonwick of Waldwick, New Jersey questioned the quality of American cars. He expressed his skepticism–and its resolution–very frankly in his letter to Chrysler Chairman Lee Iacocca.

"I have not owned an American car since 1966 when I bought my first Volkswagen." writes Mr. Bonwick. *"Since then, I have owned another VW, a Volvo, two Hondas and a Mitsubishi Galant. I even have a Honda lawnmower and snowblower."*

"I guess I'm what you could call a 'Hard Sell.'"

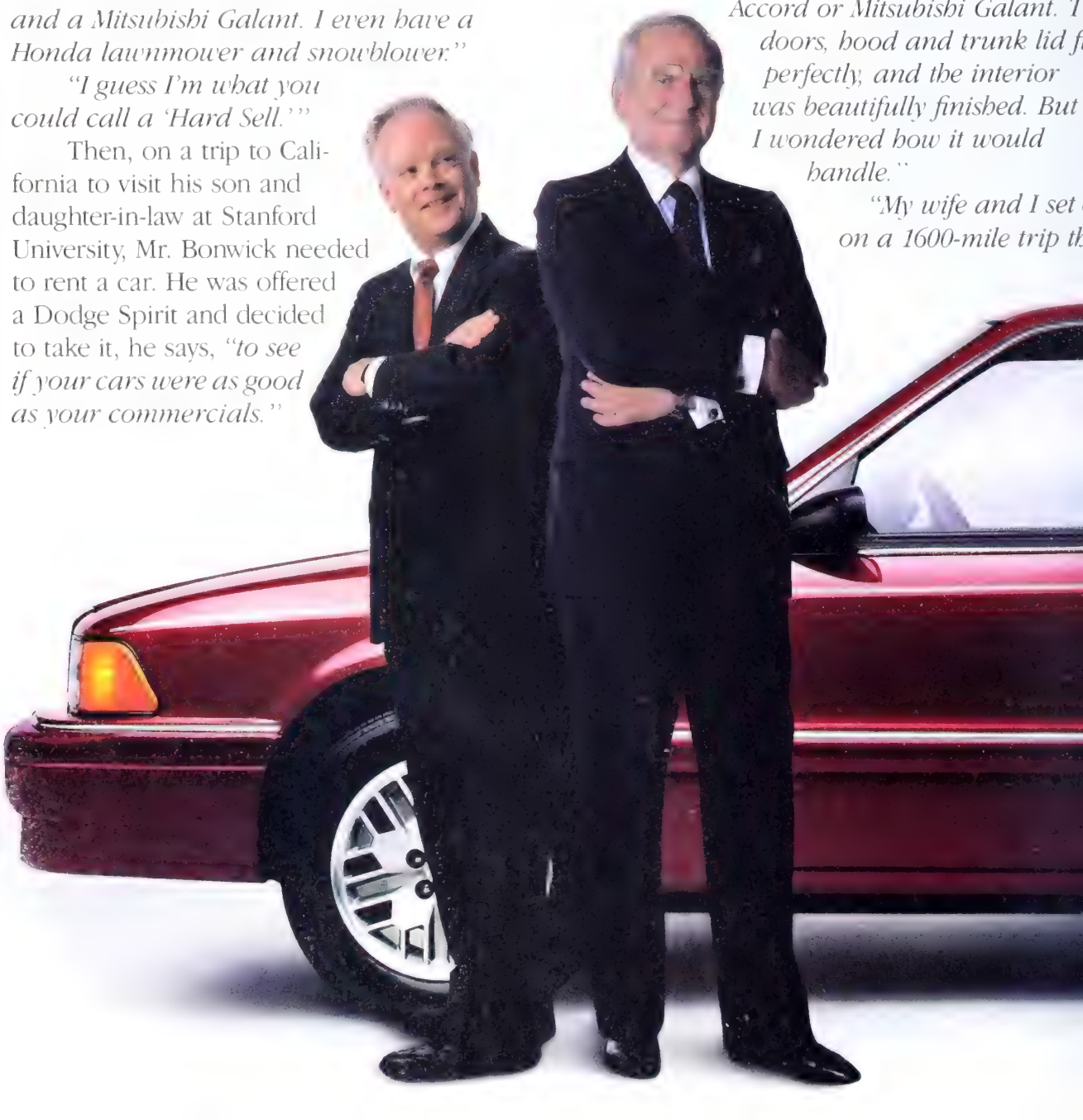
Then, on a trip to California to visit his son and daughter-in-law at Stanford University, Mr. Bonwick needed to rent a car. He was offered a Dodge Spirit and decided to take it, he says, *"to see if your cars were as good as your commercials."*

And so began what must rank as one o the most thorough test drives. Here, in his words, is what he discovered after driving th Dodge Spirit for the first time.

THE 1,600-MILE TEST DRIVE.

"I was initially impressed with the car paint, which seemed to be flawless. Certain it was better than either my current Honda Accord or Mitsubishi Galant. T doors, hood and trunk lid f perfectly, and the interior was beautifully finished. But I wondered how it would handle."

"My wife and I set on a 1600-mile trip th



ook us from the steeply inclined hills of an Francisco, across Death Valley, around he Grand Canyon and finally through he Arizona desert to Phoenix."

"The car performed beautifully under ll the conditions we encountered. I came way with a great deal of admiration for the Dodge Spirit."

Later on, when his son and daughter-in-aw were graduating from Stanford, Mr. Bonvick returned to California. Once again he eeded to rent a car and again, chose a Dodge Spirit.

"First," he says, *"I wanted to see if this ne would be as good as last year's. Second– nd more important–I wanted my son to rive the Spirit because I knew that he and is wife were looking for a new car now that ey were about to begin their careers."*

"My son would be another hard sell. fter all, I was the one who had been reaching Japanese quality to him for years."

"When my son Jeff drove the Spirit, he was very impressed with its quality and performance. And, of course, the driver's air bag was a real selling point."

LIKE FATHER, LIKE SON.

"Naturally we looked at all the imports for comparison; but in the end, he agreed–as you say in your commercials–that dollar for dollar, you just can't get a better buy. And he bought a 1990 Spirit V-6 that very day!"

"And if I could come up with an economic justification for trading my Honda Accord in on a Spirit, I'd do it tomorrow. I think you'd agree that's quite a turnaround for someone with a car ownership history like mine."

We couldn't agree more, Mr. Bonwick. And thanks for writing to help prove once again that all the advertising we do can't get the point across like a single test drive. Whether it's 1,600 miles or around the block.

Advantage: Dodge

THE CREDIT SLOWDOWN COULD BE LESS SCARY THAN IT SEEMS

'D

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CEMBER 31, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

PAINFUL NEW YEAR HANGOVER HAT'S GOING TO LAST AWHILE

When the book is finally closed on the 1990 economy, it will be the unhappy last chapter that everyone remembers. But this year's ır ending may quickly be forgotten as the even dreari- tale of 1991 unfolds.

'ertainly, Saddam Hussein and the threat of war in Persian Gulf overshadowed all other events. But n before the Iraq-Kuwait border became a staple on evening news, the characters in the economy were ating through some ominous plot twists that are also tral to the outlook for the months ahead.

The oil shock only worsened the economy's other problems, many of which won't be resolved even after the gulf crisis is over. That's why 1991 is looking so downbeat. Even if the recession ends by spring, as the forecasters expect, the remaining troubles will put a damper on the recovery (page 74).

Going into the new year, demand for goods remains weak, ndustries continue to cut jobs and output (chart). And pite declines in interest rates, housing's severe slump n't ended, and the Federal Reserve Board has yet to ourage banks to start lending again, although it has ainly been trying.

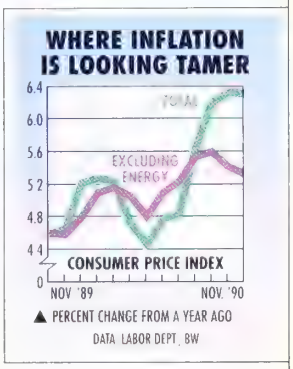
HE FED ITS THE ISCOUNT ATE

The Fed has stepped into the breach and eased monetary policy aggressively. The central bank's most prominent move came on Dec. 18, when it cut the discount —the charge banks pay to borrow from the Fed—to %, from 7%. The action is an important step toward overy, but it has come too late to do anything more n keep the recession from turning into a rout.

he change in the highly symbolic rate was the first in rly two years. It means that the Fed is deeply con- ned about the economy's weakness, and that it ap- rs more willing to push interest rates lower than ply to allow them to fall with market forces.

nd on Dec. 19, the Fed trimmed another quarter of a centage point off the federal funds rate—the charge nterbank lending. It was the fourth such cut in seven ks, and it dropped the funds rate to 7%. That will e it easier for many banks to lower their prime rate.

he central bank's moves may have been encouraged he latest price reports. The November price indexes w that the August oil shock has about run its course with no sign that higher energy costs fueled price hikes in other areas. Moreover, the recession is knocking the wind out of wage and price pressures generally, and that is improving the inflation outlook for 1991.



The consumer price index rose a modest 0.3% in November, down from the energy-driven gains of 0.6% in October and 0.8% in both August and September. Fuel prices rose only 0.5% in November, compared with jumps in the 4%-to-5% range in each of the three previous months. The gulf crisis will push consumer inflation for 1990 to about 6.3%. But even as the oil shock was hitting, nonenergy inflation was beginning to ease downward (chart).

The weakness in the industrial sector will continue to take pressure off goods prices. Producer prices of finished goods did rise a larger-than-expected 0.5% in November, but that partly reflected onetime jumps in prices of cars and tobacco products. Prices in the earlier stages of processing remained exceptionally weak, and that will keep the downward pressure on finished-goods prices.

PAINFULLY WEAK DOMESTIC DEMAND

Prices at the producer level will show little upward movement until demand and production levels begin to show some zip. That isn't in the cards anytime soon. Output at the nation's factories, mines, and utilities has fallen in each of the past three months, including a stunning 1.7% drop in November. The November loss was the biggest monthly decline since the last recession.

More worrisome than the depth of the drop, however, was its breadth. All the major categories of industrial production posted declines, and among manufacturers, only the paper industry raised output.

Certainly, auto makers accounted for much of the weakness. Detroit built just 5.3 million cars, at an annual rate, in November, a 22.1% drop from the 6.8 million assembled in October. But even excluding autos and parts, factory output fell 0.8% last month.

That's not surprising. Weak domestic demand is hurting other manufacturers. Producers of consumer goods have been cutting output for some time, reflecting the troubles in retailing. In November, retail sales fell 0.1%, to $151.6 billion. And after adjusting for inflation, real retail sales are down at a 3.6% annual rate so far in the fourth quarter. Unless shoppers went out and spent

[R.C. HOFFMAN/BW

Business Outlook

lavishly right before Christmas, this year's holiday shopping season will be the worst since the last recession.

Producers of business equipment haven't been immune to the spending slump, either. Falling operating rates suggest that demand for business equipment, especially industrial machinery, will be sluggish next year. In November, operating rates for all industry fell to 80.9%, from 82.4% in October. Manufacturers used just 80% of their facilities last month, down from 81.6%.

Industrial production is also feeling the harsh effects of the construction slump. Output of building supplies has fallen 5.1% in the past year. Demand for such goods will decline further into 1991, because the housing sector shows no signs of recovering from its slump.

In November, housing starts increased 9.3%, to a 1.13 million annual rate, because of unseasonably warm weather in some regions. But new-home construction so far in 1990 is down 13% from the first 11 months in 1989.

DON'T LOOK FOR A STRONG REBOUND

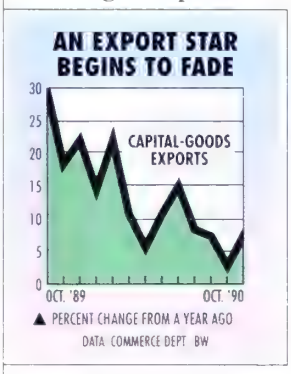
So far this quarter, industrial output has shrunk at a 7% annual rate—the sharpest decline since the very end of the last recession. But after the economy hit bottom in 1982, output rebounded at a furious pace.

That won't happen this time around. Why? Most important, businesses have kept a lid on excess stockpiling of goods. In October, inventories at factories, wholesalers, and retailers rose 0.4%, but business sales increased a faster 0.9%. So the amount of goods on hand was equivalent to a low 1.48 months of sales in October.

The absence of excessive inventories means businesses won't have to dump goods as the recession worsens. But as spending recovers, companies won't add much to inventories, either, which will blunt the recovery.

Output gains will also be held back because demand is unlikely to recover as feverishly as it did in 1983. High debt burdens will keep many from spending. And the problems in the financial sector will keep credit requirements stricter in 1991 than they were during the 19

Moreover, some of the rebound in spending will g foreign producers: Imports account for a larger shar domestic demand than in 1983. That was evident the October report on the merchandise trade bala The trade gap widened to $11.6 billion, from $9.3 bi in September. Imports jumped by 12.2%, to a record of $46.4 billion. A rise in costlier oil caused only pa the surge. Imports of manufactured goods rose sha



U. S. manufacturers are pected to benefit from the tinued growth in exports. ports gained in October, strong 8.6%, to $34.8 billi also a record. But ex growth has tapered off fro heady pace of the two prev years. This slowdown has played a role in the trade cit's lack of improvement.

Growth in capital-goods ports—a stellar performer in 1988 and 1989—is sag (chart). Since capital goods accounted for 41% of the in exports since 1987, weaker demand for these prod will hold down overall export growth.

Export gains have also been hampered by the re sions in Britain and Canada. And in recent mo sharply higher fuel bills meant that developing coun have had to curtail imports of other goods.

A decline in oil prices will reopen the markets of S America and elsewhere to foreign goods. That sh help export growth here. In addition, the low excha rate of the dollar will boost demand for American go

As it stands now, exports and lower inflation ma the heroes of the coming year's economic story. Bu manufacturers and homebuilders, the early part of is shaping up to resemble closely the tale spun ou late 1990. That's a sequel few will want to read.

THE WEEK AHEAD

DURABLE GOODS ORDERS

Thursday, Dec. 27, 8:30 a.m.
Orders received by manufacturers of durable goods probably dropped about 4% in November, following October's 3.6% gain. Weakness in transportation orders should account for much of the decline, mainly reflecting cutbacks in the auto industry. Also, aircraft orders should fall back after a large jump in October.

ADING INDICATORS

Friday, Dec. 28, 8:30 a.m.
The government's composite index of leading indicators likely fell about 0.5% in November, after the sharp 1.2% drop in October. That would be the index' fifth consecutive decline, and it would be another signal that an upturn in the economy is not yet in sight.

CONSTRUCTION SPENDING

Wednesday, Jan. 2, 10 a.m.
Construction outlays probably declined about 1% in November. That would reverse October's 1.3% rise, which reflected a surge in public-works expenditures. The drop is suggested by the month's big loss of construction jobs and by the downtrend in new building contracts.

NAPM SURVEY

Wednesday, Jan. 2, 10 a.m.
The National Association of Purchasing Management's index of business activity likely continued to fall in December to about 41% from 41.3% in November.

NEW SINGLE-FAMILY HOME SALES

Thursday, Jan. 3, 10 a.m.
The ongoing weakness in new-h sales likely continued in November another decline, to an annual rat about 485,000, from 491,000 in Octo

EMPLOYMENT

Friday, Jan. 4, 8:30 a.m.
Nonfarm payrolls probably shrunk about 75,000 workers in December. would be less than November's hug cline of 267,000, but it would still signal of continued recession. The u ployment rate should rise to about from 5.9% in November. Further weakness is suggested by the uptre initial unemployment claims.

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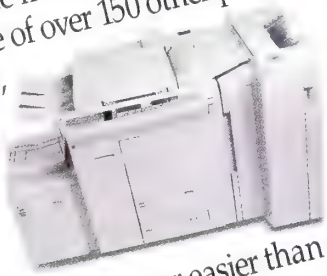

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911

BANKING

DECEMBER 31, 1990

THE BANKER'S NEW CLOTHES

WHY A PROPOSED OVERHAUL MAY GO NOWHERE

These days, bankers seem to be writing everything off. They would probably like to write off 1990, too. All in all, it was one of the worst years for the folks in pinstripes. As commercial real estate loans went sour and the economy swooned, one bank after another bit the dust.

That will cost the Federal Deposit Insurance Corp. about $4 billion this year. And on Dec. 17, FDIC Chairman L. William Seidman warned that the figure could rise an additional 25% next year. One day later, America's biggest bank, Citicorp, said it would lay off 4,400 employees and post a fourth-quarter loss of as much as $400 million (page 42).

Hoping to stanch the bleeding, the Bush Administration has designed a blueprint for a sweeping overhaul of the banking system. Early next year, Treasury Secretary Nicholas F. Brady will propose measures to shore up the bank deposit-insurance fund, streamline regulation, and repeal 60-year-old laws that bar banks from interstate branching and an array of financial services (table). "To have a healthy and sound industry, you need to take away these archaic rules," says a senior Treasury official. Lawmakers will take up the proposal in January. But Congress, gun-shy after the savings-and-loan debacle, isn't likely to approve the whole package—and half-measures could leave America's banks in even worse shape.

There's no ignoring the fact that today's banking industry is a financial dinosaur and badly needs to be reformed. The laws governing banks haven't changed since the Depression, while the financial marketplace has galloped forward. The 1933 Glass-Steagall Act bars banks from selling such financial services as real estate, insurance, and securities, but others can invade bankers' turf. The credit units of General Motors Corp. and Ford Motor Co., for example, offer the same kinds of services as a neighborhood bank. General Electric Financial Services Inc. underwrites insurance, sells stocks and bonds, leases equipment, and even finances credit-card receivables. And look who else got into the credit-card business this year: American Telephone & Telegraph Co., which now boasts more than a million customers for its no-fee Visa and MasterCard.

CREDIT CRUNCH. What makes repair of the banking system all the more urgent is the looming recession. Banks are crucial to the economy's operation—far more so than S&Ls. Unlike thrifts, which are primarily home-mortgage lenders, banks funnel savings into business investment and provide an efficient payment mechanism for most monetary transactions. They also serve as conduits for the Federal Reserve Board's monetary policy. "If you keep hobbling the banks long enough, pretty soon you discover that the economy can't run very fast," says former Fed Governor H. Robert Heller. Indeed, business executives are already howling that tighter bank-lending standards have created a credit crunch that's adding to the current downturn.

But Brady's prescriptions for c
what ails banks are far from
things. The bitter aftertaste of the
billion thrift cleanup has dampened
gress' appetite for banking reform
because they're eager to shield ta
ers from future bailout bills, lawm
are likely to support the Admin
tion's plan for beefing up the insu
fund—on the banks' tab.

Replenishing the deposit-insur
fund is high on the Administra
agenda. In 1991
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E. Litan, R. Dan E
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pect the fund to
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BUSH'S PLAN TO FIX THE BANKING SYSTEM

SALVAGE THE INSURANCE FUND With the taxpayer-funded S&L bailout unfolding, Bush wants banks to pay for restocking the federal deposit insurance fund. Options: higher premiums or a onetime industry assessment

CUT INSURANCE COVERAGE Officials want to limit the exposure to losses on deposit insurance. They don't want to change the symbolic $100,000 coverage amount. But they may limit the number of insured accounts

EXPAND POWERS The Administration wants to eliminate barriers that keep banks separate from other financial and commercial businesses. Officials also want to end restrictions on interstate banking

REFORM REGULATION Bush wants to redo the regulatory system. A 'super-regulator' may be proposed to take on banking duties of the Federal Reserve, the Comptroller of the Currency, and the Office of Thrift Supervision

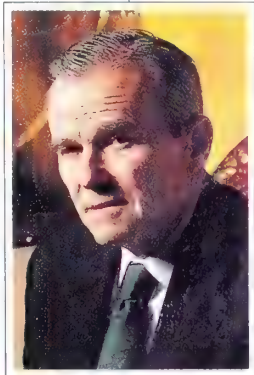
DATA: BW

n. For next year alone, the FDIC's idman estimates that the fund will ed an additional $25 billion. He sug- sts that banks pay premiums of 23¢ r every $100 of deposits, up from .5¢. Plus, banks could get socked with onetime assessment equal to 1% of posits.

For banks, the sugar in the medicine ould be access to new markets. But the easury expects to have a hard time lling a plan to extend banks' powers. 'ficials will argue that dismantling the rriers that keep banking parate from other finan- l services would open new ofit opportunities. Consid- Minneapolis-based Nor- st Corp., one of a handful U. S. banks whose insur- ce businesses were grand- thered under Glass-Stea- ll. The profitable unit had 0 million in revenues this ar, up from $10 million ree years ago, says Nor- st Vice-Chairman Richard Kovacevich.

The Administration's plan ould keep federally in- sured deposits off-limits for new businesses. Instead of depending on deposits, which are a cheap source of funds, banks would have to raise their own capital to finance forays into such new ventures as underwriting and selling securities, real estate, and mutual funds. And the plan calls for strict divisions between bank and nonbank units.

SCARY SPECTER. Whatever the built-in precautions, any push for giving banks more territory may well be doomed in Congress. Lawmakers will probably allow interstate branching since so many states have already lifted restrictions. But Congress may balk at the Treasury Dept.'s ambitious proposals to expand banks' powers. A similar bill eight years ago allowed thrifts to dabble in new businesses—which laid the groundwork for the S&L disaster. "When you talk about bank powers," says one lobbyist, "you can't avoid raising the specter of Charles H. Keating," whose go-go strategy at failed Lincoln Savings & Loan Assn. will cost taxpayers $2.5 billion.



BRADY: REFORM OF THE INSURANCE FUND HAS THE BEST CHANCE IN CONGRESS

A half-step approach by Congress, though, could injure banks more than no action at all. The plan to replenish the insurance fund, assuming Congress goes along, could wipe out earnings at many banks next year. If it doesn't provide other avenues for making money, the proposal could boomerang: Hundreds of banks, reeling from high insurance premiums, could go under. "By making banks weak, they make the insurance fund more vulnerable," complains Jerry L. Jordan, First Interstate Bancorp's chief economist.

If 1991 isn't going to be the year for bank reform, 1992 surely won't be either. Few incumbents are ready to sing the praises of bank reform to voters back home just before an election. It all leads to a depressing conclusion, because the longer it takes Washington to find a cure for banks, the worse shape they'll be in—raising the sickening prospect of yet another taxpayer bailout.

By Catherine Yang in Washington, with Mike McNamee in Washington, David Greising in Chicago, Kathleen Kerwin in Los Angeles, and bureau reports

BANKING

REED: UNDER PRESSURE FROM REGULATORS, HE'S BEEFING UP LOAN-LOSS RESERVES

JOHN REED EATS CROW FOR CHRISTMAS

In an about-face, Citicorp cuts its dividend and announces more layoffs

It wasn't exactly a "read my lips" kind of pledge. But it had a similar tone. For weeks now, Citicorp Chairman John S. Reed has insisted that the nation's largest bank would overcome its debt woes and rebuild its sagging capital. Despite an assault on his bank's stock price and disbelief on Wall Street, Citi's maverick CEO resisted such grave steps as slashing the dividend.

Now, Reed has had to retreat. On Dec. 18, Citi announced it was slashing the dividend on its common stock by 44%, to an annual rate of $1 a share. Citi also said it would add $340 million to its pool of reserves against bad commercial loans. The bank took a whack at expenses as well, saying it would trim its work force by 4,400 over two years. This comes on top of 3,600 layoffs expected by yearend. In all, the loss of 8.5% of the bank's staff by the end of 1992 will translate into annual savings of $800 million.

MASTER PLAN? Wall Street is betting that these steps are part of a strategy devised by the 51-year-old Reed to bolster Citi's balance sheet and rebuild its capital base. For one thing, Citi wants to sell from $1 billion to $2 billion worth of convertible preferred stock to a group of foreign investors, possibly including Kuwaiti and Saudi institutions, say investment bankers. Citi declines comment.

Nor will Citi officials talk about the reasons for the about-face. But Wall Street analysts reckon that regulators forced Reed to take draconian measures to sort out the bank's problems. Indeed, the announcement coincided with the completion of Citi's annual audit by the Comptroller of the Currency. "Other than the fact that it's a little embarrassing, everyone knew Citi would have to do something in the final quarter," one analyst says. "The regulators made the difference."

The dividend reduction also was viewed as a way of appeasing regulators. The cut only saves Citi $260 million in cash a year, but it demonstrates Citi's concern about its capital at a time when regulators are pressing banks to build even larger capital cushions. Other big banks, such as Chase Manhattan and Chemical, have already slashed their dividends. It may also make the convertible preferred stock more appealing to investors. With the dividend cut, Citi's common stock now yields about 7.5%, while the yield on the convertible could go as high as 12%.

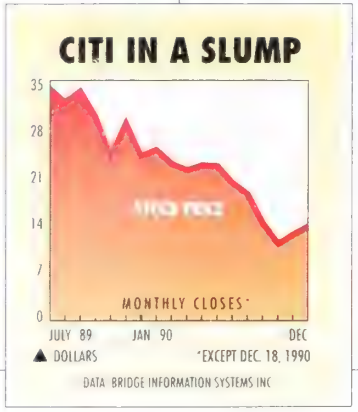
No wonder many Citi shareho who have seen their stock slide 50% year, to 13¼ (chart), feel betrayed. had delighted in Reed's decision to t it out and defend the dividend. shattered," says John Neff, manag Windsor Funds Inc., one of Citi's bi shareholders. "It is foolish, inco able, and inconsistent with every that went before it. As recently as weeks ago, Reed in a public invest forum said that it was an ineff thing to do."

BARE CUPBOARD. Reed may have ha tle choice, analysts say, much as h little choice but to swallow the co the added reserves and layoffs. Citi those moves will translate into a lo $300 million to $400 million in the quarter. But its reserves were lo downright skimpy vs. other big b At the end of the third quarter reported that nonperforming comm loans rose by $780 million. The boosted its loan-loss provision by million, but that left it with res on hand to cover only 39% of its loans, compared with at least 70 other big banks. Analysts have est ed that Citi needs an additional $2 b to $4 billion in reserves. "This is a in the bucket," says Christopher T honey at Moody's Investors Service

The oncoming recession could onl gravate Citi's loan problems, espe since much of its loan portfolio is to the depressed Northeast. Citi disclose any fourth-quarter figure nonperforming loans. But in an int memo to staffers, Reed and Cit President Richard S. Braddock adm that nonperforming real estate loan continue to rise.

Still, more reserves may have to until Citi solves its capital problem that's where the mysterious inv group comes in. Reed has acknowle in the past that he has spoken with eign groups about an investment in but he has declined to elaborate. statement, the bank acknowledged "it has developed a comprehensive tal plan." Citi sa will offer further tails after its yea results are disclos January. If all goe cording to plan, may then be able t store some of the diblity he now has among dismayed s holders.

By John Meehan, Leah Nathans Spir New York



BULL IN HE PRESIDENT'S CHINA SHOP

unders by Sununu keep embarrassing Bush. Can the staff chief last?

ohn H. Sununu has good reason to wish for a happy 1991, because the year just ending turned out to be a prisingly rough one for the combat- White House Chief of Staff. The for- r New Hampshire governor thought worst was over back before Election y, when President Bush and congres- nal Democrats finally ended months wrangling over the budget. Sununu, o had opposed revenue increases, ar- ed that Bush had paid "tax ransom" a budget deal that would improve slumping economy and smooth the h to Bush's reelection.

But the staff chief's troubles refused ease up, and Sununu now must be ndering just how long his fulness to the President will lure. "Things are officially of control," sighs one GOP ider, poring over a list of re- t White House miscues and nders. Says another: "The blem with this White House ration is that they think y are all so politically as- e—and they aren't."

ust look at the grief Sununu had since the November tions. For one, his behind- -scenes maneuverings on sonnel matters have rein- ced his image as a clumsy orcer. His personal recom- ndation for Republican Na- nal Committee chairman, liam J. Bennett, decided not take the job after White use lawyers belatedly in- med the former drug czar l face limits on his outside nings. Sununu, who expect- to win praise for his imagi- ive choice for party chief, is still ging brickbats for his impulsiveness.

GERPRINTS. Even when he wins—as forcing out Education Secretary ıro S. Cavazos—Sununu leaves his gerprints everywhere. Worse, he has n losing some battles. Despite widely ked news stories that Sununu wanted nptroller of the Currency Robert L. rke out, Bush took Treasury Secre- y Nicholas F. Brady's advice and ned Clarke to a new five-year term. lost embarrassing for Sununu was ıouncement of a new policy barring eges from reserving scholarships for ıority students (page 63). While the staff chief was busy firing Cavazos, Assistant Education Secretary Michael Williams issued the new policy statement. The announcement outraged civil rights, education, and business groups, emboldened Democrats, and forced Bush to order a speedy retreat from the position.

It was clear that a policy with important political implications had been put out without White House review. Sununu, a conservative who might have been expected to argue behind closed doors for the new position, instead ended up working in public to distance the President from his own Education Dept. In the end, the controversy overshadowed Bush's appointment of former Tennessee Governor Lamar Alexander, a prominent Republican moderate, as Cavazos' successor. "The whole thing just adds to the appearance of disarray," says Gary L. Bauer, a former White House domestic adviser under President Reagan. "They are getting a consistent record of flip-flops."

To many, Sununu's problem is simple: The brash, egotistical Chief of Staff is trying to do too much. "He's overextended," says Michael Mezey, an expert on the Presidency at De Paul University. "He not only has to run a complex operation at the White House, making sure the President's instructions are carried out, but he has taken on this huge policy role and political-adviser role. And he's Bush's ambassador to the right wing in his party. He can't do all that." Sununu declined to be interviewed for this story.

A SOLDIER. Sununu may have already sacrificed his value to Bush as a bridge to GOP conservatives. Many are still livid that Sununu acquiesced on Budget Director Richard G. Darman's plan to accept tax hikes as the price of deficit reduction. "We don't see John Sununu as part of the solution anymore," says conservative activist Richard Viguerie. "We see him as part of the problem. We have no allies in the White House."

For now, the right is likely to stay frustrated. Bush still sees Sununu as a loyal soldier who can handle jobs too dirty for the patrician President. "Sununu is doing precisely what the President wants him to do," says former White House Chief of Staff Howard H. Baker Jr. "He knows the mind and mood of Bush better than anyone except Barbara Bush."

But Sununu could be in trouble if he can't rein himself in. On Dec. 11—at a time when Administration policymakers were deeply divided over the future of a capital-gains tax cut—Sununu proclaimed in a speech that Bush would again propose the reduction in next year's budget. On Dec. 18, the President said he might drop the whole idea.

If a sagging economy and trouble in the Persian Gulf continue to drag down the President's popularity, Bush loyalists may go gunning for the staff chief. Then the question will become: Is the President getting his money's worth out of Sununu?

By Douglas Harbrecht in Washington

SUNUNU MAY HAVE ALREADY SACRIFICED HIS VALUE TO BUSH AS A LIAISON WITH GOP CONSERVATIVES

POLITICS

DIALING FOR DOLLARS, CRANSTON-STYLE

The Senate's Keating probe uncovers a well-oiled fund-raising machine

Senators have to run for office just once every six years. But campaigns have become so expensive that members have to spend their entire terms in a relentless search for money. And virtually all of them hate it.

But not Alan Cranston. The California Democrat revels in the chore his colleagues disparage as "dialing for dollars." He's so good at it that in 1986, the last time he ran, Cranston raised an unprecedented $13 million.

While Cranston's fund-raising prowess is a Capitol Hill legend, few of his peers ever learned just how he did it. But many of Cranston's secrets have now been laid bare. Documents released as part of the Senate Ethics Committee probe of the relationship between former savings and loan chieftain Charles H. Keating Jr. and five senators—Cranston, Donald W. Riegle Jr. (D-Mich.), John H. Glenn Jr. (D-Ohio), Dennis DeConcini (D-Ariz.), and John McCain (R-Ariz.)—provide rare insight into the methods of a fund-raising master.

The key piece of evidence is a 190-page deposition supplied to the committee by Joy N. Jacobson, Cranston's chief tree-shaker. From her testimony, fund-raising novices can learn some vital tricks of the trade (table).

DOING FAVORS. The first is to be willing to mix fund-raising and lawmaking. Jacobson isn't on Cranston's Senate staff, but she often sat in on meetings where Cranston and major donors discussed legislative or regulatory business.

She also appears to have been a conduit for donors seeking favors. In a Jan. 2, 1987, memo to Cranston, the closest thing to a smoking gun the probe has turned up, Jacobson wrote: "There are a number of individuals who have been very helpful to you who have cases or legislative matters pending with our office who will rightfully expect some kind of resolution." Among the names was Keating, whose Lincoln Savings & Loan Assn. was in big trouble with regulators.

THE BUCKS STOP HERE: CRANSTON WITH ACTRESS MORGAN FAIRCHILD

Three weeks later, Keating sent Cranston $100,000 for a voter-registration organization started by the senator. Ultimately, Keating gave $850,000 to Cranston-backed voter-registration efforts. In each case, the check came soon before or after Cranston performed some kind of service for Keating. Jacobson, who declined to respond to a BUSINESS WEEK inquiry, denied in testimony that she was recommending that Cranston take care of Keating's regulatory problems, only that his supporters deserved a reply.

Cranston says there is no link bet his actions and Keating's checks. others aren't so sure. Ellen S. M director of the Center for Respo Politics, says Cranston's behavior firms our worst suspicions of who runs our government. There's no b exposition of the role money plays i political system."

Another motto: Ask for a lot, and often. Cranston told the ethics that the best sources of money those who had donated large sum other causes, such as wealthy sup ers of Israel. He knew Keating had en almost $1 million to Mother Te the Roman Catholic nun who won Nobel peace prize for her work with poor. He also believed that if he sto hitting up his donors, they would give the money to someone else. S soon as Keating wrote one check, Ja son would inquire about the next c

Keating fit Cranston's donor prof another way: He was a businessma hot water. Cranston never overlo the obvious supporters of his liberal ties: wealthy do-gooders, Hollyw types, and labor leaders. But lots of ators were going after them. Cran seems to have made a specialty of ness executives in trouble. One o voter-registration groups, the Cente Participation in Democracy, lists a its supporters five foundations, six unions, eight entertainment-com leaders, and seven corporate execut

HOT WATER. Of the seven execut five have been connected with sca They include Keating, former junk king Mike Milken, and Thomas Spi former head of the Columbia Savin Loan Assn. and a major Milken cus er. Milan Panic, chairman of ICN maceuticals Inc., which has had bru with several federal agencies, inclu the Securities & Exchange Commis appears on the donor list. So does E Rozet, a prominent California deve who was a major player in the Hou & Urban Develop Dept.'s scandal-pla low-income hou program.

Cranston felt tha flattered donors by ing them for large s of money. "Many ple trying to raise ey can never b themselves to ask really large amou he told the ethics p "Yet, for those you soliciting, it's a co ment to ask for a l sum." At first, K ing's donations w

THE CRANSTON TOUCH

1. Don't waste time asking for small sums of money from lots of different donors. Instead, hit up a few supporters for a bundle. Don't be shy about asking for $1 million—it's considered a compliment
2. Go to obvious sources: Hollywood moguls, heirs, and heiresses. But don't overlook business executives with legal problems
3. Make sure donors know your personal fund-raiser is a Washington insider. Have your fund-raiser sit in on meetings between you and donors. And make sure that any requests for assistance are handled quickly
4. The best time to make your pitch: soon after a donor's problem with a regulatory agency or a stubborn Washington bureaucrat is cleared up
5. Once a check is in hand, immediately ask donors when they could give more. Tell them that the future of American democracy is at stake

DATA: BW

ll. But they grew over five years, il the last check reached $500,000. former Democratic congressman s Cranston's tactics "about the most ressive I've ever heard of."

SONAL FUNDS. Other senators have d to emulate Cranston. Some, includ- Riegle, have sought advice on set- up voter-registration foundations. fate of the Keating Five, however, will determine just how popular the newly revealed techniques might become.

Cranston's own fundraising days are over. He's undergoing treatment for prostate cancer and has announced that he won't seek reelection in 1992. But under federal law, he'll be able to convert more than $750,000 in unspent campaign funds to personal use.

Ironically, Cranston has long advocated campaign-finance reform. But as long as the law allowed, he was prepared to exploit every loophole, a situation he admits produces favorable treatment for generous givers. "I'm not going to mislead [the public] into the belief that every citizen will have an equal opportunity to get at me," Cranston says. "Because it's not true."

By Paula Dwyer in Washington

Commentary/by Mark Ivey and Robert Buderi

WOULD PEACE BRING AN OIL GLUT? NOT FOR LONG

Oil-rich countries throwing the production spigots wide open. Tankers laden with crude, lined near ports searching for buyers. ese are comforting images for a orld suffering from an economic owdown and high oil prices. Only a w weeks ago, the talk was of war d $60-a-barrel crude. Now, many see ace and a glut on the high seas.

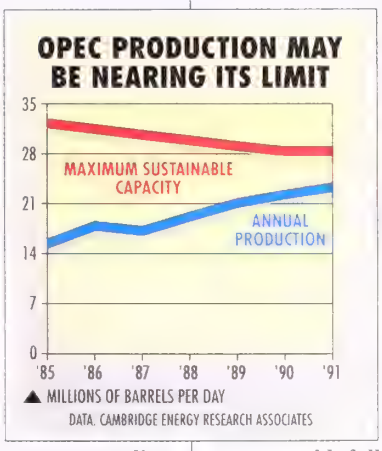
The reasoning is simple enough: The ughly 4 million barrels a day in lost uwaiti and Iraqi exports will eventuy return to the market. At the same ne, other OPEC producers who raced pump up capacity may be unwilling go back to the old days. Prices plumet, maybe to $10 a barrel. All's well the gas tank.

Or is it? Better not splurge on that s guzzler just yet. While prices ould indeed fall if peace broke out, e likelihood is that any glut would be ort-lived. Even with Kuwait and Iraq ck on line, OPEC countries next year ould be facing a growing capacity unch (chart). Demand has been slugsh. But the end to unseasonably arm weather, the loss of Soviet exrts, and the vested interests of OPEC embers point to a more balanced supy-demand equation.

T OF GOODWILL? In this scenario, ices fall initially but jump back to ound $20 by summer. Says John H. chtblau, president of the Petroleum dustry Research Foundation Inc. in ew York: "A sustained price crash is ainst the interest and the desire of the OPEC members—and therefore e glut will be controlled."

The key is Saudi Arabia, which has ade up most of the lost production by king daily output from roughly 5.5 llion to 8.5 million barrels a day. me oil watchers speculate that the udis won't want to give back their w market share. But that ain't necsarily so: Saudi Arabia makes more lling 5.5 million barrels a day at $20 an 8.5 million at $12. And whether U. S. troops stay or go, the Saudis may want to promote goodwill in the region by taking their postinvasion windfall and letting things return to normal. "The Saudis will act responsibly" and cut production, asserts James L. Dunlap, president of Texaco USA.

Other OPEC members, which together are pumping an extra million barrels a day or so, should feel the same. Burned by the 1986 oil bust, they reacted swiftly earlier this month to avoid a glut by agreeing in Vienna to return to pre-August quotas once the crisis is resolved. That would mean cutting total production to 22.5 million barrels a day—down 500,000 barrels from current levels—and shooting for a $21 benchmark price.



This uniform action may not be immediate, and a temporary surplus may appear if Kuwait and Iraq come on line before others cut back. Then there's the historical problem of quota-cheating among certain OPEC members. But one big culprit before was Kuwait. After incurring the wrath of Iraq, "it's ludicrous to think that the Emir will go back in and start cheating again," notes analyst Frederick P. Leuffer of C. J. Lawrence Morgan Grenfell Inc. Likewise, other OPEC cheaters are more aware than ever that the practice carries a heavy price. In any case, while some cheating will hold prices down, it doesn't make for a glut.

Even a rash of cheating may be offset by other forces. One is Mother Nature. The International Energy Agency puts fourth-quarter demand at 54.1 million barrels a day, down 300,000 from 1989. Part of the drop is caused by U. S. temperatures, which are running 23% above a year ago. Normal weather in January would raise consumption some 700,000 barrels a day, says analyst Kevin Lindemer of Cambridge Energy Research Associates. If a cold spell hits, he says, producers may strain to meet demand, "taking everybody's mind off the glut and putting it on heating supplies."

A cold snap may be over quickly, but it does soak up inventories, which *Petroleum Intelligence Weekly* reports are up 53 million barrels worldwide from 1989—mainly because of a buildup at sea. Still, a more important factor is the Soviet Union, where an economy in crisis and a crumbling infrastructure have pinched production. The U. S. S. R. Academy of Sciences' Institute for World Economic & Political Research estimates that Soviet oil exports could fall as low as 1.2 million barrels a day in 1991, down from 2 million in 1990.

World demand is another wild card. Estimates for 1991 vary from a slight falloff to moderate growth—representing a swing of more than a million barrels a day. But even in the worst case, a quick response from Saudi Arabia will keep supplies and prices in line when the crisis ends. In fact, prices may rise as OPEC's excess capacity continues to shrink: Although the current drama has accelerated plans by some members to expand capacity, veteran oil watcher Lichtblau says Kuwait and Iraq are likely to forestall expansion to rebuild their infrastructures. Ironically, after all the scrambling of the past months, the world is apt to find itself in the same boat as before the crisis—with prices near $20 a barrel.

RETAILING

FINAL CLEARANCE: THE BAD NEWS FOR STORES IS GOOD NEWS FOR LIQUIDATORS

AFTER THE CHRISTMAS SALES, THE GOING-OUT-OF-BUSINESS SALES

Not even a miracle will get some retailers through the holiday season

Children and retailers used to greet Christmas with the same wish: that this year's booty would be even better than last year's. But few store owners will see that dream come true. In fact, as children count their toys Christmas morning, many retailers are likely to be considering bankruptcy proceedings and store liquidations. "This is an awful Christmas season," says Peter J. Solomon, an investment banker for retailers. "There are going to be a large number of retail bankruptcies."

It's bad enough for such stalwarts as Sears, Roebuck & Co. and Toys 'R' Us Inc., which struggled to generate sales by slashing prices before Christmas they may turn out to be the lucky Catalog showroom retailer Best ucts Co. and electronics retailer land Superstores Inc. have both knowledged that some kind o structuring is possible. Department Stores Inc., which file Chapter 11 protection last May, never emerge from bankruptcy. "E day that goes by, the probability go that they'll be liquidated," says Do J. Tigert, a Babson College mark professor who recently completed a jor study of the retail industry. denies that it's in such bad shape.

NO CHESTNUTS. With consumer dence at its lowest in almost a de unemployment rising, and signs tha nation is in recession, it's not surpr that consumers are cutting back. To the heavy debt that many retailers on during the 1980s, and it bec clear why not even a miracle wil some through the Christmas se "Hoping consumers will pull their f cial chestnuts out of the fire by C mas is like hoping to find a cure for in that time," says Alan G. Millste New York retail consultant. "The ch of that happening is not only elusiv beyond the imagination."

While that's bad news for reta it's good news for bankruptcy-wo specialists and store liquidators. are busier than ever, and I antic being extremely busy after the Year," says workout specialist Geo D. Lurie, who recently left EPI Pro USA, the maker of personal-care ucts that's now in bankruptcy pro ings. "Retailers are retrenching,

HOW THE ELVES LET PC DEALERS DOWN

There are plenty of customers crowding the aisles at Simutek/Connecting Point, reports the Apple Computer Inc. dealership in Tucson. There's just one problem: The store doesn't have what they want.

Most of Simutek's customers want a $999 Macintosh Classic to put under their tree. Since its October introduction, Apple has stepped up monthly production by 50%. But buyers snapped up the 1990 supply by Thanksgiving. "We could have sold twice as many if we'd had them," says Robert Puette, Apple USA president.

It's not the only hard-to-find new computer product (table). Although manufacturers say they'll soon fill the pipeline, that's scant comfort to dealers, who have struggled all year with slowing PC sales and declining profits. Many hoped that Christmas, which can contribute up to 30% of annual sales, would revive them.

Now that's not going to happen, thanks to the too-slow product shipments and to the first big economic slump the PC retail biz has ever fa Staring at mounting losses, many the 4,000 or so U. S. computer dea are tossing in the towel: By 1995, 1 stores will drop out, says consul Frank Lynn & Associates. Big play won't be exempt. Forrester Resea Inc. says three to five of the top chains will disappear by mid-1992.

Others are desperately hoping to acquired by healthier rivals. Many dependent dealers, for instance, seeking help from franchisers. Int gent Electronics Inc., a 1,000-store work based in Exton, Penn., says converting 15 independent dealers franchisees every month. "The i pendents are dinosaurs," says Rich D. Sanford, Intelligent's chairman.

For dealers, Christmas' supply p lems only make life more frustrat But at least they're still hanging o

By Deidre A. Depke in New York, Barbara Buell in San Francisco

HOT PRODUCTS, SHORT SUPPLIES

Product	Price	When supplies should improve
HEWLETT-PACKARD LASERJET III PRINTER	$2,395	MARCH
COMPAQ LTE 386S/20 LAPTOP	6,499	JANUARY OR FEBRUARY
APPLE MACINTOSH CLASSIC	999	FEBRUARY OR MARCH

DATA BW

ing different attitudes, and looking · help," says David Buxbaum, chair- ın of Buxbaum, Ginsberg & Asso- tes, an Encino (Calif.) consultant that ecializes in liquidating retailers. "We ven't stopped working in four years."

Debt is wreaking havoc even at some the best-known department store npanies, including R. H. Macy & Co. l Carter Hawley Hale Stores Inc. th deny that bankruptcy is down the ıd. But in addition to being heavily ıebted, both companies have many ıres in Southern California and the rtheast—regions that are being hit rd by the business slump.

To cut costs, Macy's and Carter Haw- have reduced inventories and capital penditures. But they're losing share to ıttle-based Nordstrom Inc., which is ving ahead with ambitious expansion ns and has the cash to refurbish its res continually and keep them fully cked. Many Carter Hawley stores, in- ding Emporium and The Broadway, ıld desperately use sprucing up. "Car- Hawley's stores have nothing to nmend them," says Kurt Barnard, a w York retail consultant. "They just there like soggy corn flakes." The npany says it's renovating some res.

Others are guilty of overexpansion. ıes, the Connecticut-based discount ın, has already closed 221 of its 676 res since May. But it faces even gher times, especially since powerful npetitor Wal-Mart Stores Inc. is in- ling Ames's New England turf. ıes's sales were flat to down 4% for first week of December, says Gilbert Harrison, chairman of New York- ed Financo Inc., which represents ıes's bondholders. Harrison insists t Ames is "relatively nonemergency." t others are less sanguine. "Ames nonstrates the shocking speed with ich a business can deteriorate," says lbur L. Ross Jr., head of corporate ınce at Rothschild Inc. and a bank- ıtcy specialist.

Like Ames, Best Products is suffering m too much debt. And it's competing h an entirely new sort of retail outlet. catalog discounter was popular in '70s and early '80s, but recently, gi- discount "warehouse clubs" have len much of its business. Taken pri- e in 1988 by investment firm Adler & ıykin, Best lost almost $60 million in year's first six months.

Now, our goal is to create a balance et that will support the company g-term," says Managing Partner nard Shaykin. "That could include a tructuring." After the holly and mis- oe come down, that could become a ıiliar refrain.

By Laura Zinn in New York, with bu- u reports

KIRK KERKORIAN SAYS IT WAS JUST IACOCCA APPRECIATION DAY

But as Chrysler's largest stockholder, he's unlikely to sit idly by

KERKORIAN: THE DEALMAKER WON'T AGREE TO LIMIT FUTURE BUYS OF CHRYSLER STOCK

For now, Kirk Kerkorian says he'll just shut up and let Chrysler Corp. Chairman Lee A. Iacocca do the driving. The 73-year-old billionaire claims that he's nothing more than a long-term investor in Chrysler. His 9.8% stake in the auto maker, disclosed in a Dec. 14 government filing but accumulated over two months at a cost of $272 million, makes him the Detroit company's largest shareholder. Another large shareholder, Robert A. Bowman, who as Michigan state treasurer handles the Michigan state pension fund, claims to see nothing amiss. "We're intrigued by this," he says, "but we're not viewing it as any more than a guy who saw a pretty cheap stock."

Hardly anyone else believes dealmaker extraordinaire Kerkorian will be satisfied to sit back and collect Chrysler's spiffy 8.8% dividend. Says Shearson Lehman Brothers Inc. auto analyst Joseph S. Phillippi: "I'd give anything for a totally honest, eight-words-or-less answer: Why'd you do this?"

Part of Kerkorian's new fascination with Chrysler stems from his admiration for the 66-year-old Iacocca. The two, both sons of immigrants, met last year at Gulfstream Park racetrack in Hollywood, Fla. "He's got great faith in Mr. Iacocca and his management team," says Michael E. Tennenbaum, the Bear, Stearns & Co. vice-chairman who arranged Kerkorian's stock buys. "Whatever they do, Mr. Kerkorian thinks it will make Chrysler shares that much more valuable."

FAT REBATES. The question is whether Iacocca and his team will act with or without Kerkorian's prompting. In his government filing, the Los Angeles investor says he has no intention of launching a takeover battle, unseating board members, or otherwise upsetting Iacocca's applecart. But when Chrysler asked him to sign an agreement to limit future stock buys, Kerkorian refused. Tennenbaum says Kerkorian didn't want to close off his options "because the environment can always change."

Right now, the environment for auto makers is deteriorating. Sales, profits, and stock prices have been softening. Chrysler is sitting on $4 billion in cash but needs it for an expensive new-car development program. When its crucial new midsize car, code-named LH, comes out in the fall of 1992, it will provide the basis for developing a wide range of other vehicles, much as Chrysler's compact K-car did in the 1980s. Until then, Chrysler is counting on profits from its Jeeps and minivans to fund work on the LH, and those profits are being squeezed. Chrysler fattened rebates on its Jeeps and new minivans on Dec. 17.

Some observers think the economy's weakness supports Kerkorian's long-haul claims. Says Bowman: "We're still optimistic long-term on Chrysler. If our position weren't so high, we might buy more." Michigan owns 3.4% of Chrysler. The markets gave a grudging endorsement to the view that Chrysler's stock was underpriced. In three days of hectic trading after news

IACOCCA: A STRONGER POISON-PILL DEFENSE

(TOP TO BOTTOM) PHOTOGRAPHS BY DOWNEY CELEBRITY PHOTO, MA. AFRONTE CELEBRITY PHOTO

of Kerkorian's stake, Chrysler rose 1⅜, to 13⅝—a nice pop, but not exactly the kind of runup that signals the start of a takeover battle.

Kerkorian's downside risk seems limited. If Chrysler were to cut its $1.20 annual dividend by $1, say, to save cash, the stock price might drop to $8, estimates Phillippi. But that also might prompt Kerkorian to demand a seat on Chrysler's board—as he did during an unsuccessful run at Western Air Lines Inc. in 1976. There, he forced management to put five of his allies on the board before walking away with a tidy $25 million profit when the company bought back most of his shares.

WHEELER-DEALERS. In that case, Kerkorian forced change. Could he at Chrysler? It isn't a breakup candidate—Iacocca already has sold most nonessential parts of the company. That has fueled speculation that Kerkorian may be betting on a takeover of Chrysler. Indeed, when he began buying Chrysler shares, Iacocca and Fiat Chairman Gianni Agnelli were discussing possible tie-ups ranging from a full-scale merger to joint development of a small car.

For Chrysler, with virtually no overseas operations, such a linkup could be useful. "In the long haul, they'll look for someone, or someone will come looking for them," says Joseph G. Paul, auto analyst at Sanford C. Bernstein & Co. But he admits that Chrysler brings lots of negatives to any marriage, including a huge unfunded pension liability and a labor contract that's "the equivalent of cement overshoes." Moreover, Chrysler's 12.2% share of the U.S. car-and-truck market isn't the draw it once was. Says Ford Motor Co. President Philip E. Benton Jr.: "North American profitability is the lowest of any major market in the world. Nobody in his right mind would go into the car business in North America today."

Still, Kerkorian could believe Iacocca, who has a wheeler-dealer streak of his own, may yet cook up something. But if the two men are to cut deals together, they've started out awkwardly. At Iacocca's request, they met on Dec. 7, when Kerkorian held roughly 3% of Chrysler's stock. Despite his pledge to be friendly, only days after that meeting, Kerkorian paid $114.8 million more to triple his stake. A shaken Iacocca responded by strengthening the company's poison-pill defense. Kerkorian has protested, but Chrysler said it merely brought its defenses in line with current practice. If that squabble is any sign, there's little doubt that in the months ahead, Kerkorian will be critiquing Iacocca's driving.

by James B. Treece in Detroit and Ronald Grover in Los Angeles

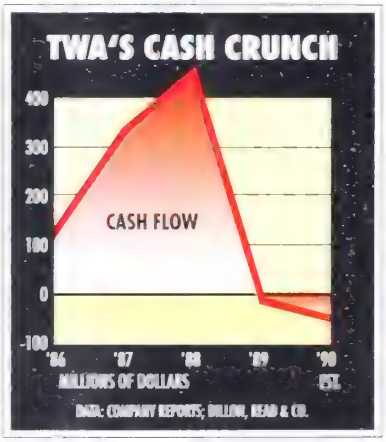
AIRLINES

ONLY CARL ICAHN KNOWS WHERE HE'S FLYING TWA

Why is he selling assets—and bidding again for Pan Am?

Who can figure Carl C. Icahn? The Trans World Airlines Inc. chief has never acted like a typical airline guy. And judging by his latest moves, he isn't about to start now.

On Dec. 16, Icahn agreed to sell lucrative routes to London and gates at Chicago's O'Hare International Airport to American Airlines Inc. for $515 million. That same day, as if to quiet talk that he was liquidating TWA, he launched his second bid in two months for sickly Pan American World Airways Inc.



Icahn appears to be positioning himself to extract more cash from TWA. Here's how: With the proceeds from the sale of the London routes and other assets, he will be able to keep TWA in the air. Icahn admits that because he's facing a cash-flow crunch brought on by rising fuel prices, he needs the money from the asset sale just to keep flying another year. In the meantime, he could keep his offer for Pan Am on the table. At $225 million in cash and $150 million in paper, it's a lowball bid. But it may be the most Pan Am as a whole can fetch. If Icahn can swing a takeover, he will have a pile of assets—mainly certain plum routes—that could fetch a high price from such expansion-minded carriers as American and United Airlines Inc.

Icahn, who has already recovered his initial $436 million investment in TWA, has a different explanation for his actions. He says he's trying to build TWA any way he can. "We take it step by step," he says. His goal: to give the airline the "critical mass" it needs to take on the likes of United and American.

TALENT LOSS. Whatever the motivation for it, Icahn's entire gambit could blow up in his face. By promising to sell the London routes, the heart of TWA's system, Icahn is cutting future income. And Pan Am, strapped for cash, may not survive long enough for him to consummate a takeover. Even if the Pan Am deal does come off, it makes sense only if Icahn's managers assemble a long-term strategy, says an executive at a co ing airline. "He doesn't have a m ing plan," the executive observes.

Icahn may not have the high-lev ent on hand to formulate one, eith slew of managers have left the Kisco (N. Y.) offices in recent mont was discouraged by the direction," Sanford Rederer, a strategic pl who resigned in late September.

Any executive might find TWA nances discouraging. Capital lease debt of nearly $2 lion stagger the er. Every dim crease in jet prices has cost $100 million or bottom line, and flow will shrivel negative $40 mill 1990, estimates mond E. Neidl, a lyst at Dillon, Re Co. (chart). This TWA's losses cou $350 million on nues of $4.7 billi

Icahn argues t Pan Am deal would help stem fu losses. Standard & Poor's Corp. a Phillip Baggaley agrees. He sa would strengthen the combined ca European routes and could quickl for itself. How? Icahn could raise million by selling overlapping rout

But it might do little more tha off the day of reckoning. A com TWA and Pan Am would carry more $3.5 billion in long-term debt and c leases. With two of the industry's fleets, nearly the entire fleet would to be replaced in the next few yea

Enlarging TWA would give Icah profitable out: The line might be to peddle to other carriers, espe European operations eager for a hold in the U.S., now that U.S. re tors may ease restrictions on foreig uity stakes in U.S. airlines.

Icahn says selling assets and tryi buy Pan Am is "the only hope got." But is that a hope for the airl make money—or for Icahn? He wil ly take more money from TWA. Bu airline's profitable and indepen years may be drawing to a close.

By Todd Vogel in New

How to turn today's uncertain financial market into an investment opportunity.

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CORPORATE STRATEGIES

BUILDING A DOORWAY TO JAPAN

How contractor Austin just won three lucrative airport deals

JUDGE AT A HANGAR BUILT BY AUSTIN IN CLEVELAND: "WE WERE PATIENT"

Thomas P. Logan knows that in Japan, it's important to show your face. So, despite the flu, the Austin Co. construction executive scooted 270 miles down to Osaka from Tokyo on Dec. 12 to be on hand when a local partner, MHS Planners, Architects & Engineers, opened a branch office. Upon his arrival, MHS brass whisked him up before the crowd to introduce him as their new co-contractor on two Japanese airport projects. Logan then pulled on a bright blue festival coat, wrapped a white band around his head, and, to the delight of the assembled construction bigwigs, helped split open the lid of a vat of sake with a wooden mallet.

Japan suddenly has turned sweet on Austin. In late November, the Cleveland-based construction and design subsidiary of National Gypsum Co. won a $3.5 million contract with MHS to design a passenger terminal at a new airport in Hiroshima. A day later, it wrapped up a similar deal with MHS to design a cargo facility at the $7.7 billion Kansai International Airport. And on Dec. 11 came the big prize: 40% of a $50 million contract to design and supply KIA's baggage-handling system. Austin will share the project, one of the biggest yet won in Japan by a U.S. contractor, with Kawasaki Heavy Industries Ltd. and a German company. Says Logan: "This is the booster which will put us into orbit."

Austin's win has quieted a brewing storm over foreign access to Japan's construction market, but pressure on Japan to open further won't vanish. In fact, at least one competitor for the contract says the award to Austin was just an exercise in expediency by Kansai airport officials. Kenneth S. Goldstein, vice-president of BAE Automated Systems Inc. in Carrollton, Tex., says his company is more qualified to build the system. He suspects that a Japanese company will end up supplying most of the equipment under Austin's bid. BAE plans to file a protest with the Kansai International Airport Co. Kansai officials, though, say they picked Austin and its partners based solely on price and technological merit."

Despite BAE's complaints, it's clear that Austin can teach other U.S. companies how to win business in Japan. The main lesson? Patience. Austin has had an office in Tokyo since 1972.

Austin is also willing to wait for a return on its investment. Profit on the baggage project won't cover the $20 million Austin spent to win the contract. Yet Kansai airport gives Austin one of what they want most: a stamp of approval in local eyes. "It's a stepping stone," says Austin's director of overseas operations, Franco M. Eleuteri.

'SPREADING THEIR WINGS.' What Austin is stepping toward is a role in Japan's coming high-tech construction boom. The country is rushing to build giant research complexes, intelligent buildings, and automated distribution facilities. Last year, it designed a research facility for International Reagents Corp. in western Japan. In 1987, Austin won a consulting job to help design a medical center for a futuristic city to be located near Hokkaido. "They've been spreading their wings everywhere," says Kenneth Bovetti, a commercial minister at the U.S. embassy in Tokyo.

There have been more than a few setbacks along the way. When Tokyo International Airport planned an expansion in 1988, it turned down Austin because its bid on the project without tying up with any Japanese contractors.

But the disappointments only persuaded Austin to pull out all the stops for the Kansai airport. Logan and his predecessor traveled to Osaka 80 times in two years to answer questions and collect information. Logan handed out his business card to every Kansai official in sight. "We were patient," says Austin CEO Thomas J. Judge. "But under [Japan's] definition of patience, Job would be mercurial."

Austin is using its experience at Kansai to push more aggressively into the private sector. Already, it's in on a deal to design a hotel near the new airport. Austin expects early next year to announce another private contract "about the same size" as the baggage-handling project. To keep tabs on its growing business in western Japan, Austin will open a new office in Osaka in early January. The company should certainly feel welcome. One of its new Osaka friends is promising Austin free space and waiving the "gift" of two months' rent normally required.

By Ted Holden in Tokyo, with Zachary Schiller in Cleveland

A FOOTHOLD IN JAPAN

Austin Co.'s big Japanese contracts

Project	Estimated value of Austin share
Kansai International Airport baggage-handling system	$20 million
Kansai cargo terminal	$380,000
Hiroshima passenger terminal	$700,000

DATA: BW

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PEOPLE

KWOH'S AND YUEN'S GIZMO WAS BORN OUT OF FRUSTRATION TAPING A BALL GAME

THE GENIUSES WHO MADE VCRs SIMPLE ENOUGH FOR A 50-YEAR-OLD

Henry Yuen's and Daniel Kwoh's $60 programmer is an instant smash

Twenty years ago, you could find them in the game room at the California Institute of Technology, the two Chinese grad students who would beat all comers at Foosball. Today, they're distinguished scientists at TRW Inc.'s Space & Technology Group, where they're known for their arcane studies of the characteristics of ocean waves. But Henry C. Yuen and Daniel S. Kwoh are bound to become more famous as the geniuses who figured out what Japan's electronics giants never could: how to make VCRs easy to program.

They are the inventors of VCR Plus. Introduced over the Thanksgiving weekend in many TV markets, including New York, Chicago, and Los Angeles, the $60 remote-control device is among the Christmas season's best sellers. "It's one of the hottest products we've seen in years," says John Keating, associate buyer at Good Guys Inc., a West Coast electronics chain. Good Guys, along with such national retailers as Sears, Montgomery Ward, Silo, and Circuit City, is putting its customers on waiting lists and phoning buyers when its weekly allocation arrives.

Yuen and Kwoh, both 42, originally figured they could move a million units in the product's first year. "Now we think it's more like 3 or 4 million," Kwoh says. The product's appeal is its simplicity: Punch in the short code number now printed in many TV listings, and VCR Plus will signal almost any VCR to turn on and record at the right time. It can even change the channel on the cable TV box.

DAUNTING DIGITS. Yuen got the idea in September, 1988, when he wanted to tape a baseball game on TV, but without the bother of programming his VCR. He figured that if each TV show were numbered and if the numbers were listed in *TV Guide* or the local paper, programming a VCR would be much like dialing a telephone. "Imagine if you had to type in a name, address, city, and state to make a phone call," Yuen says. "Phones would not be nearly so popular."

Kwoh spotted the idea's flaw immediately—and set about correcting it. To assign a unique number to every combination of date, time, length, and ch would take more than 8 digits and haps as many as 12. So he masterm a coding scheme that compresses numbers and then prioritizes the that the most popular programs—ies, sports, soaps, and child shows—are assigned numbers of digits or less. The computer pro that generates the code numbers i core of Yuen's and Kwoh's patent

The two naturalized Americans s their Pasadena (Calif.) company, star Development Corp., with Kong backers in 1986 as a sideli their full-time jobs. They tried out ple of ideas for new types of teleph But they abandoned the projects dreaming up VCR Plus.

EASY SELL. This year, Kwoh cut bac TRW job to part-time to finish the d of VCR Plus and bring it to market inventors persuaded a third Ca classmate and Foosball enthusiast son Cho, to quit teaching at the Ch University of Hong Kong to run star's sister company in Hong which handles engineering and mar turing. And they hired Louise Wa an ex-management consultant daughter of Yuen's thesis adviser, newspapers to run the code numbe

Gemstar has signed up more tha newspapers, a handful of cable TV zines, and the Chicago and Denve tions of *TV Guide*. The papers bu numbers from Gemstar, and some them exclusively in their market several years. It was not a hard Lance Primis, president and ge manager of *The New York Times*, VCR Plus as a way to expand circu "dramatically." *The Los Angeles* was every bit as enthusiastic: "It's to say that if I could get a VCR P the hands of every cable subscrib Southern California, we wouldn't any more marketing problems," Willard Colston, director of de ment. Like other newspaper execu Colston declined to reveal terms o *Times*' deal.

Now, Yuen and Kwoh want to ge makers to start incorporating VCR technology into their machines. would cut into sales of the remote trols, but the two would still get $10 million a year from royalties license fees. On Dec. 5, Thomson sumer Electronics Inc. announce would start using VCR Plus as a p um feature in some of its RCA a brand VCRs next year. "If all goes we should cannibalize ourselves in eight years," Yuen says. By that maybe they'll have figured out a w simplify Form 1040.

By Larry Armstrong in Los A

> One of the hardest problems the two inventors faced was figuring out a coding system for TV listings

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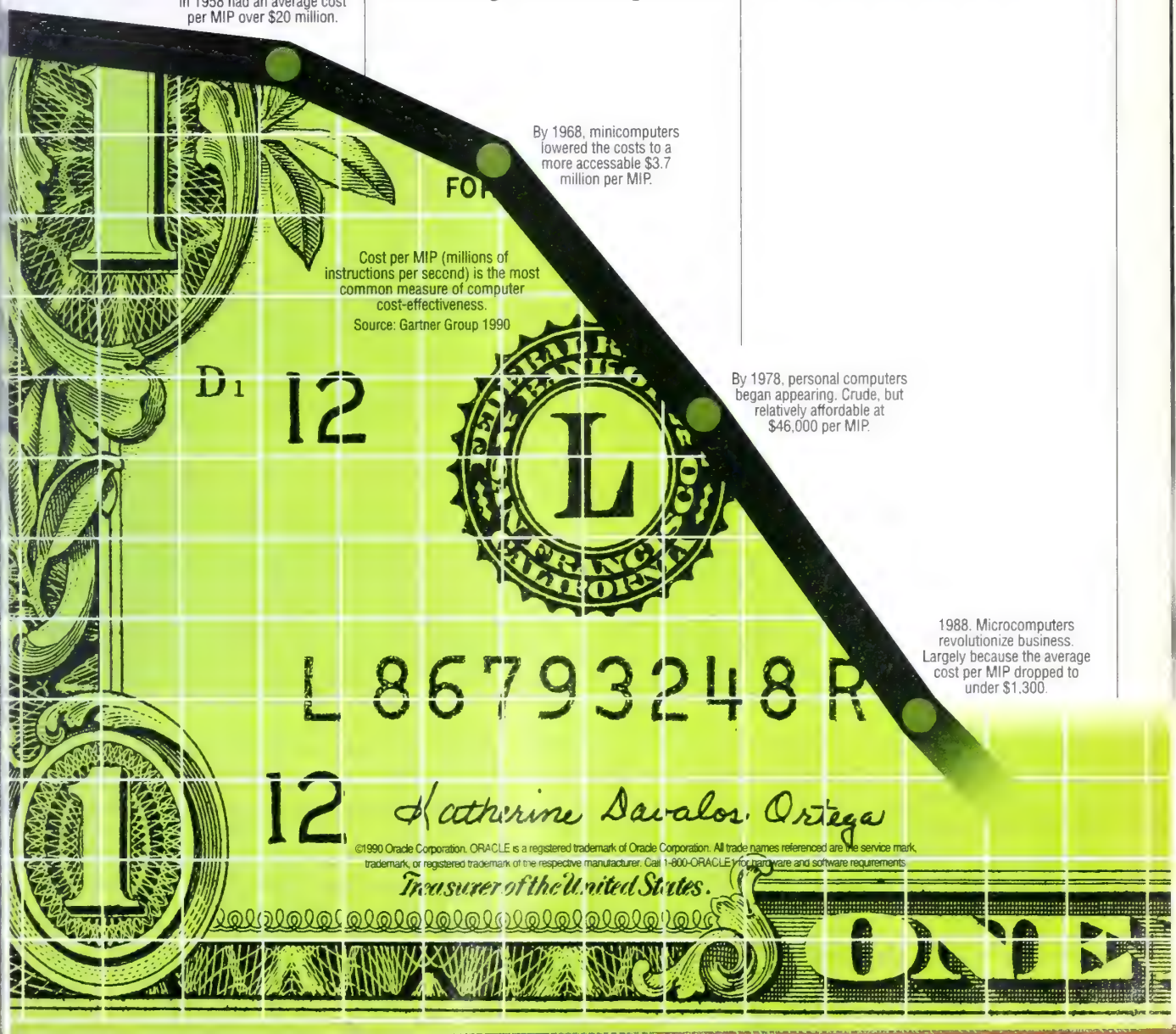

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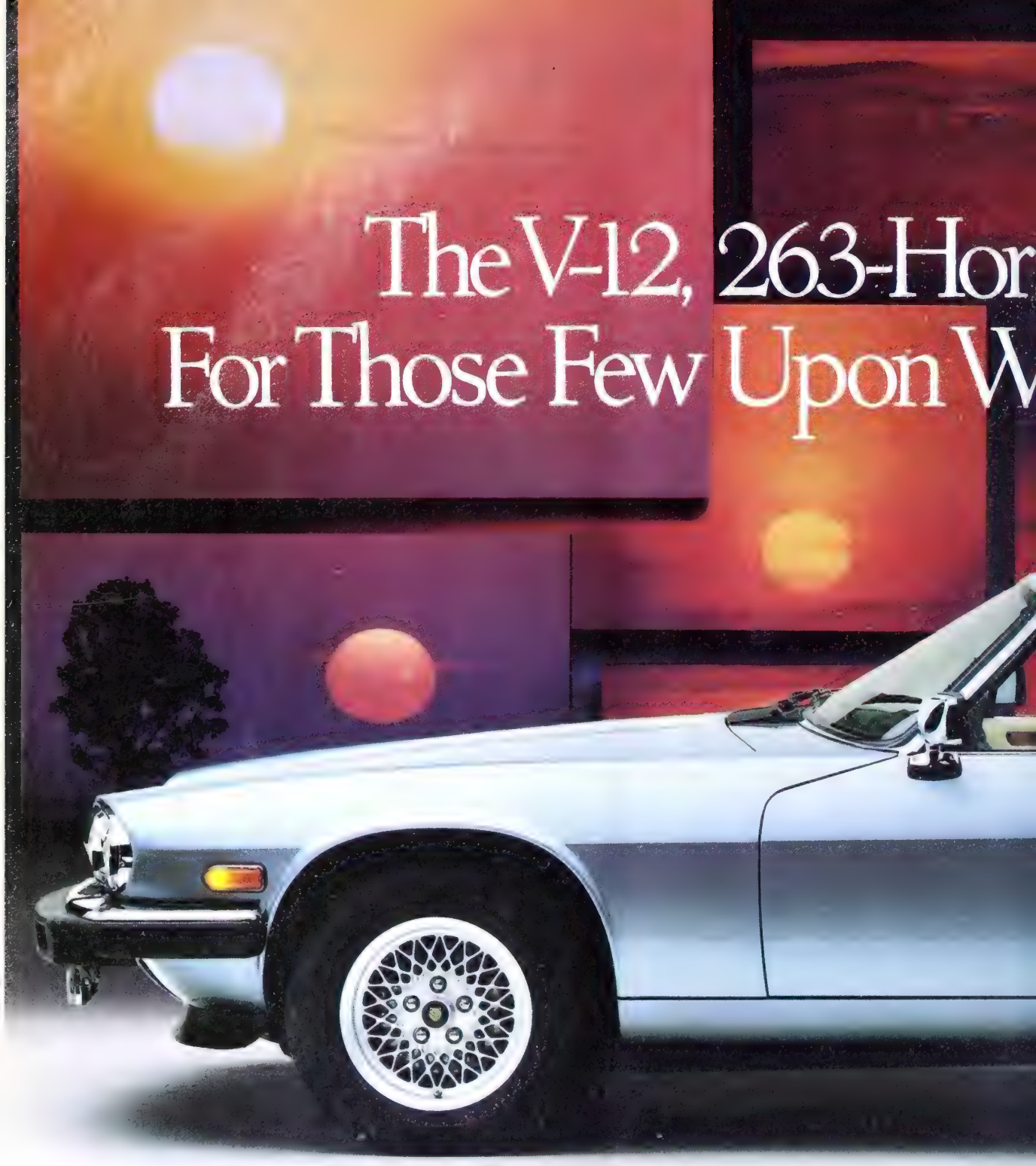

The V-12, 263-Hor
For Those Few Upon W

Some people seek the sun. Then again, there are others who bask in it at will. If you're in the latter group, consider the XJ-S Convertible.

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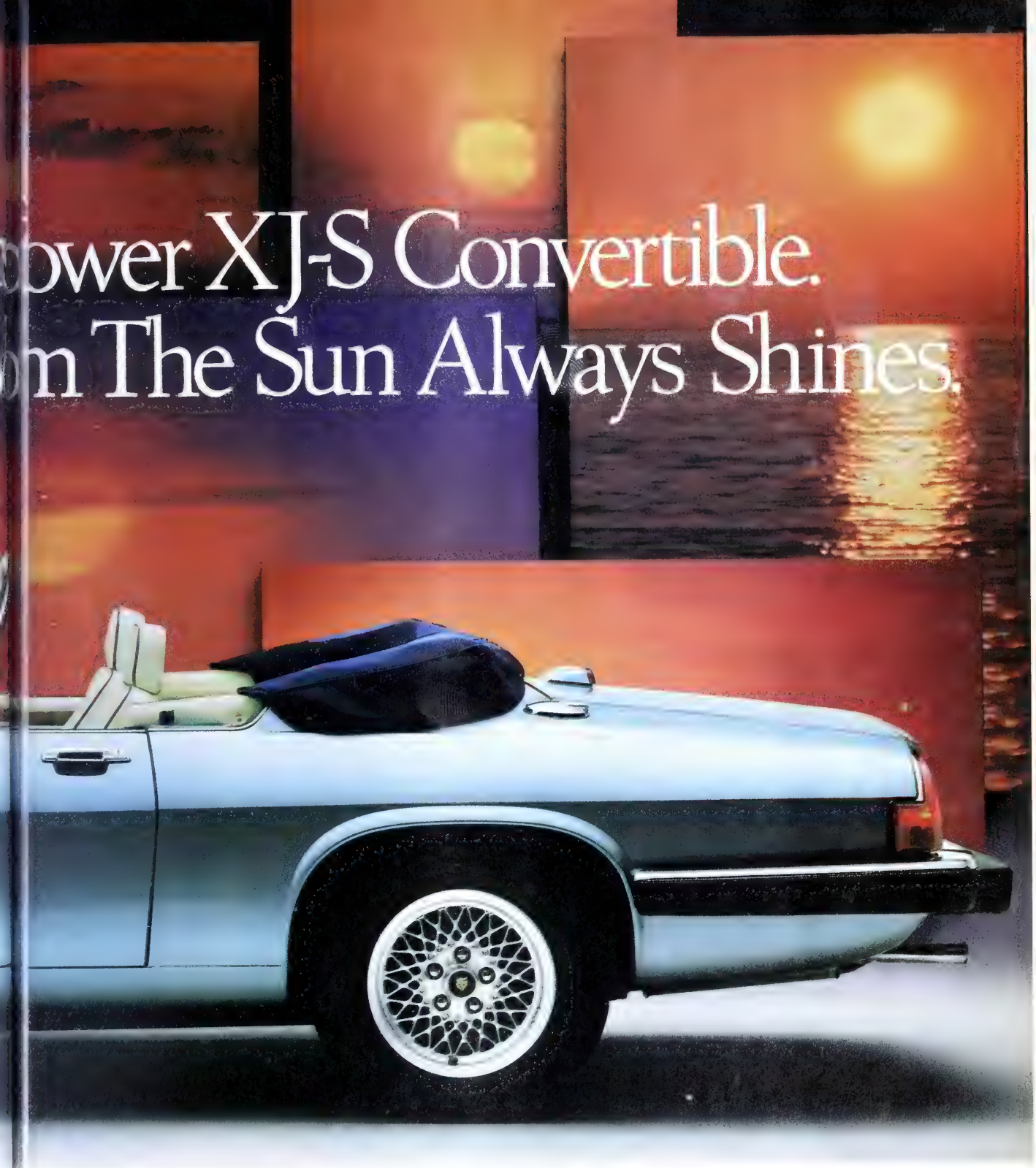
Just step on the accelerator. You'll be pressed the seat, while the S-type's sophisticated, fully indep dent suspension handles highways and twisting cou

A BLENDING OF ART AN



ds with a sense of ease and refined agility found only a Jaguar. When it's time to slow again, massive four-eel, power-assisted, anti-lock disc brakes will do the quickly and confidently.

Enter the XJ-S Convertible and you will find a ightful new interior trimmed in the beauty of highly polished burl elm. The seats are upholstered in soft, supple leather, accented by color-coordinated piping.

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PLE

DU CAN'T SAY MORRIS CERULLO AS NO FAITH

n the televangelist cleanse the soul of Heritage USA?

ike any self-respecting evangelist today, Morris Cerullo has his own TV show. It's called *Victory with rris Cerullo*, and it airs throughout U. S. and Canada. It can be pretty ly: On one recent episode, a woman he audience claimed to be possessed demons. The minister strode into the wd, pressed his hands to her head, pushed her down to the floor. Moits later, she was up again, exclaimthat the demons were gone. It was, cried joyously, "a miracle."

low, Cerullo is trying to sweep away ions from another troul soul: the bankrupt PTL vision and real estate ire. In September, Mor- Cerullo World Evange- Inc. (MCWE), his San go-based umbrella agenpaid $7 million to gain trol of PTL's 24-hour le-TV network, which ches about 7 million seholds. And on Dec. 15, ullo plunked down an adonal $42.5 million for the unct ministry's Heritage retreat and theme park Fort Mill, S. C.

IGHT FUTURE.' Cerullo, 59, already boasting about a urn to the glory days—ore founder Jim Bakker s sent to prison for 45 rs for fraud and conspir-. The December transac-, he says, "closes the k on an unfortunate past l leads the way to a ght new future." Gaining title to the assets has eluded more than a dozen ers over the past three years. Among m: local businessman George Shinn l Toronto investor Stephen R. Merk, who pulled out right before the l was to close.

But they didn't have the evangelist's -so-secret weapon: religious follow-. During a monthlong telethon last tober, Cerullo's flock pledged $11 mil- for the purchase. MCWE, which Cer- claims has a net worth of $40 mil-, obtained an $8.4 million loan from eral "friends of the ministry" whom ullo declines to name. The bulk of financing came from New Heritage Carolina Corp.—a partnership of MCWE, Malaysian banking and lodging concern MUI International Ltd., and hotel owners Seraphim Corp. in Vancouver.

Cerullo says he'll spend $15 million for renovations before the complex reopens next summer as New Heritage USA. He plans to make the property over, from the theme park to several hotels to its rundown TV production facilities. New Heritage's day-to-day operations are to be overseen by a 10-member team. Heading it is William Lund, a Southern California consultant who served as a development adviser to Disneyland and Walt Disney World.

As in the Bakker days, booze and cigarettes will be banned at the complex, which has been closed since Hurricane Hugo hit in September, 1989. It will be "a place for a good, clean Christian experience," Cerullo says. He also expects a good, clean profit: He figures the sprawling, 2,200-acre retreat is really worth about $250 million. Studies prepared by consultants Pannell Kerr Forster show that his investment will result in an "enormous payback," he says.

That's little consolation to PTL's 114,000 "lifetime partners"—followers who invested $1,000 or more to help Bakker build his empire. In the secular terminology of bankruptcy, PTL's lifetime partners have become unsecured creditors. Secured creditors—mainly banks, thrifts, and the Resolution Trust Corp.—agreed to accept 80¢ on the dollar of their $48 million in claims against PTL. What's left from Cerullo's payment will be eaten up by administrative and legal expenses. The lifetime partners probably won't get anything, says Dennis W. Shedd, the court-appointed trustee overseeing the sale of PTL's assets.

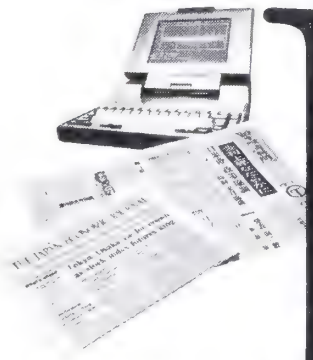
PRICE BREAKS? Cerullo has kept a low profile in the U. S. until now, mainly concentrating on missionary work in the Third World. "We're a quiet family," he says. "We're not looking for notoriety." One of five children, he grew up in a New Jersey orphanage after his mother died and his alcoholic father was unable to care for the children, he says. After graduating from New England Bible College in 1951, Cerullo was ordained by the Assemblies of God—the same denomination that once numbered Jim Bakker among its pastors. Today, Cerullo's wife and two of their three children work in his nondenominational ministry.

Now, with Heritage USA, Cerullo hopes to expand. That includes wooing Bakker's flock. David W. Welday Jr., chairman of the Lifetime Partners Committee, which has represented the partners during the bankruptcy, says most of his group will be satisfied as long as Heritage USA is still a Christian retreat. Cerullo will "make believers out of all of us again," he says. Given the PTL saga so far, that would qualify as a miracle.

By Stephanie Anderson Forest in Atlanta

LIGHTS, CAMERA, PRAYER: A TELETHON HELPED CERULLO RAISE THE CASH FOR HERITAGE USA

Access Japan



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Business This Week

BY HARRIS COLLINGWOOD

DE RABS A PIECE OF ROPE

▸ I e latest sign of consoli- dat n the $60 billion Euro- ea mputer hardware mar- ket igital Equipment on Dec agreed to pay $230 mill for a 65% interest in the mputer operations of Ger ny's Mannesmann. The sal ollows Siemens' pur- of Germany's Nixdorf ter and Fujitsu's acqui- of British mainframe ICL.

olds an option to pur- Mannesmann outright. But r now, the two compa- nies ave agreed to form a enture that will operate EC subsidiary. Mannes- and DEC each hold 9% shares of the Ger- inicomputer market, principally to manufac- and trading companies. The quisition will nearly dou DEC's share of the $6.5 German computer mar- here it trails IBM and s.

NE BUSH'S HA GETS SLAPPED

▸ A lministrative law judge commended that Den- sinessman Neil Bush, President Bush, be cen- or his conduct when he savings and loan direc- tor. Dec. 18, Judge Daniel Da on found that Bush, a director of Silverado g, failed to disclose his ss links with major bor- of the Denver thrift. dge ordered the Office ift Supervision to re- Bush to make such dis- s in the future. Bush is ed to appeal any such

IS E LAUGH CHANNEL BE ER THAN TWO?

▸ C it détente. After s of duking it out for sub ibers, MTV Networks' e Comedy Channel and Home Box Office's The Comedy Channel announced a merger on Dec. 18. Both 24-hour cable services were having a tough time signing up system operators to carry their programming.

Merger talks broke down last spring, partly over the issue of control. The compromise: Both sides agreed to transfer all assets to a 50-50 joint venture. The president and a head of programming will be recruited from outside the two companies. The host of operations will be divvied up. The new channel, dubbed Comedy TV, will be launched early next year.

ZENITH AND AT&T FOCUS ON HDTV

▸ There's a strong new entrant in the race to develop high-definition television. On Dec. 17, Zenith Electronics and AT&T announced a ground-breaking all-digital system. Although General Instrument and the consortium of Philips, Thomson, NBC, and Sarnoff Labs unveiled all-digital models earlier this year, Zenith and AT&T's version offers pictures they claim are 40% crisper than competitors'.

The new system, which supersedes Zenith's original, partially digital model, incorporates AT&T innovations in squeezing digital signals into a conventional TV channel. The Federal Communications Commission plans next year to test the three digital proposals, plus three others, and then choose a U. S. HDTV standard in 1992.

FORGET THE LOTUS POSITION. BUY BATTERIES

See that blissed-out dude, the one who seems to be grooving to the sounds on his personal cassette player? Well, he may actually be zapping his worries away with Stress Man, the brainchild of Australian physician Dean Richards. The good doctor's invention, about the size of a Sony Walkman, sends mild electronic impulses to the brain through a headphone-like attachment. The minijolts, claims Richards, stimulate the body's natural stress-fighting mechanisms. The gizmo costs $295. But think of all the money you'll save on therapy.

Given the state of the world, marketing rep Michael O'Toole expects Stress Man will be a global hit. "We're already negotiating with the largest Japanese electronics companies" to produce and market the device, says O'Toole. Just what the country needs, a stress-reduction product that increases the trade deficit. Talk about a product creating its own market.

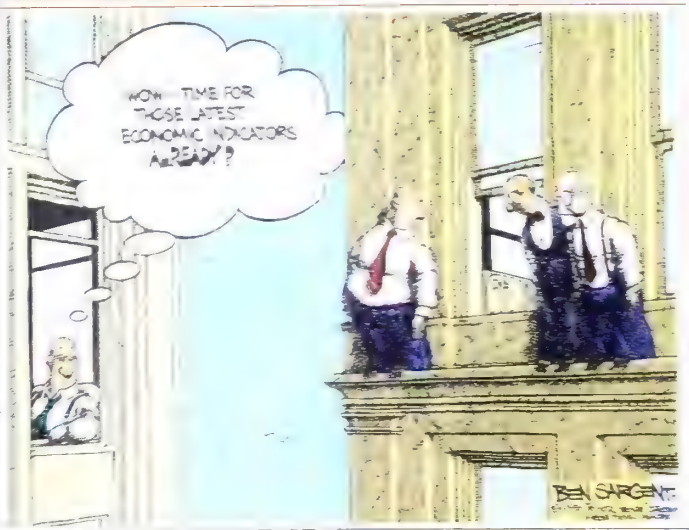
P&G AND A BOSTON TV STATION SHAKE HANDS

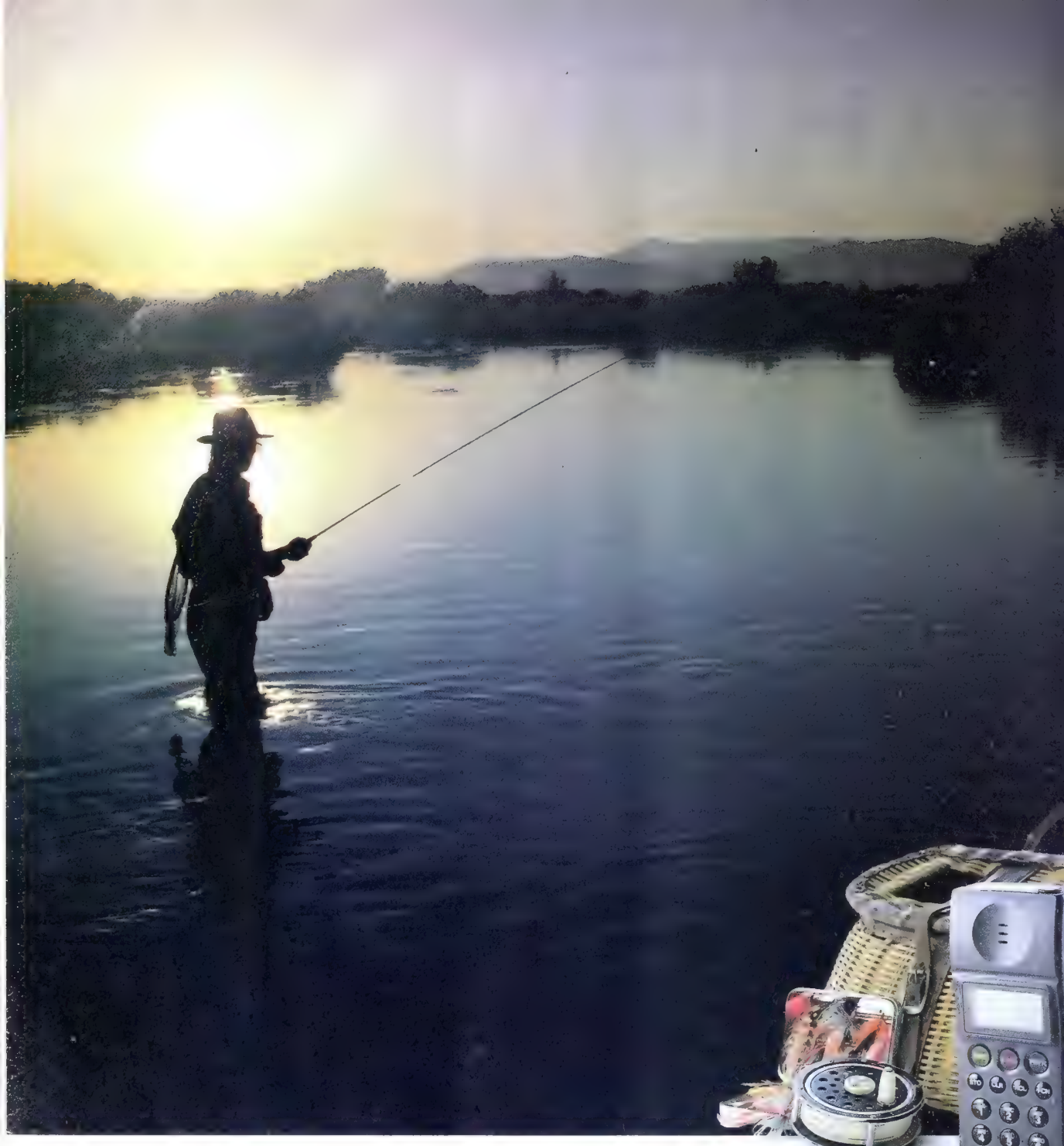
▸ Procter & Gamble has made peace with a Boston television station that aired a commercial linking its Folgers coffee to Salvadoran death squads. P&G had yanked its ads from WHDH last May to protest a spot that urged consumers to boycott Folgers because it buys some of its coffee beans from El Salvador.

P&G will resume advertising on Jan. 1, following a report commissioned by WHDH that acknowledges "certain claims in the ad weren't substantiated." Veteran journalist Scott Armstrong, who wrote the report, concludes that the ad's sponsor, a liberal political group, unfairly singled out Folgers. WHDH says it will force advertisers to prove claims made in controversial issue ads.

THESE VDT RULES SHOULD STICK

▸ Responding to growing concerns over health problems linked to video display terminals, the San Francisco Board of Supervisors on Dec. 17 passed an ordinance setting strict safety rules for tens of thousands of workers. It requires companies with 15 or more employees to provide adjustable furniture and keyboards for workers who spend four hours or more a day at a computer. Unlike similar bills passed by other local governments, the San Francisco measure is expected to withstand court tests because it doesn't preempt state or federal VDT guidelines.





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Yet, tiny as the P300 is, it's packed with handy features. Like a flip-up antenna, a sophisticated alphanumeri memory, a 99-number speed dial, multi-NAM capabilities- even a built-in clock.

The NEC P300. It takes the hassle out of taking the phone

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EDITED BY STEPHEN H. WILDSTROM

HE CIVIL RIGHTS CHAMPION RYING TO MEND BUSH'S FENCES

eorge Bush has taken quite a beating from civil rights activists lately. They're not about to forgive him for vetoing a bill that would have made it easier for vic- s of job discrimination to win lawsuits. And his Education ot. made new enemies by proposing, then largely rescind- , restrictions on scholarships reserved for minority students ge 43).

ut the picture isn't all bleak. At the long-sleepy Equal ployment Opportunity Commission, Chair- n Evan J. Kemp Jr. has unleashed a flur- of activity that could help Bush polish his nished civil rights reputation. Since taking ice in March, Kemp—a longtime leader in disability rights movement—has an- nced high-profile lawsuits and policy deci- ns that have won plaudits from civil rights ocates. "There's a crime wave of discrimi- ion, and employers have been slow to ad- ss it," Kemp says. But with a painfully t budget, the EEOC will have a tough time owing through on its new assertiveness.

ASS CEILING.' Kemp, who suffers from a scle and nerve disability, knows firsthand at job discrimination is like. In the mid- 0s, Kemp was rejected by 39 law firms. d, in 1979, he won a suit against the Secu- es & Exchange Commission, which re- ed to promote him because he uses a eelchair. As an EEOC member, he was in- mental in drumming up the Administration's early support the Americans with Disabilities Act.

he EEOC's new activism runs the gamut of civil rights ues. Charges against North Carolina franchises of Person- Pool of America Inc. served as a warning to temp services t they are violating the law if they fill an order for, say, a ck waiter or a blonde receptionist. An EEOC advisory has employers on notice that if they offer new mothers leave ond disability, they must do the same for fathers.

EEOC'S KEMP: HIGH-PROFILE SUITS

Kemp also says several television anchorwomen have called him since the agency sued Baltimore's WBAL-TV on Nov. 19. The EEOC claimed that the station discriminated against former anchor Rudy Miller by paying her far less than two male anchors.

Now, Kemp wants to break the "glass ceiling" that prevents women and minorities from reaching top corporate ranks. He has put the word out in speeches and interviews that he would like someone to file a glass-ceiling test case.

The most controversial of Kemp's measures is a Dec. 2 announcement that the agency would allow "testers" to file complaints in employment cases. Testers apply for jobs they don't really intend to take just to test for discriminatory practices. Pretend renters and home buyers have been used for years to ferret out housing bias. But business is concerned because employment decisions are necessarily subjective. "The potential for mischief is pretty strong," says Susan R. Meisinger, lobbyist for the Society for Human Resource Management.

All this activity is a happy change for civil rights groups, which had a stormy relationship with Kemp's predecessor, Clarence Thomas, now a federal appeals judge. "These innovative steps are welcome signals," says Nancy Kreiter, research director of the Women Employed Institute.

Still, activists think the EEOC is far from being a tough regulator. They want Kemp to file more high-impact class actions. They worry that EEOC field offices are too quick to dismiss cases as meritless. And they are frustrated by Kemp's failure to support the civil rights bill. The President, who took office building links to the civil rights community, has recently been breaking them. Evan Kemp is quietly trying to undo the damage—but the job may be too great for one man.

By Susan B. Garland

PITAL WRAPUP

AMPAIGN FINANCE

he loopholes in campaign-finance legislation seem to be growing big- r all the time. In a complaint to the ederal Election Commission, Common ause charges that Louisville newspa- r heiress Mary C. Bingham effective- gave $250,000 to former Louisville ayor Harvey Sloane for his unsuc- ssful bid to unseat Senator Mitch cConnell (R-Ky.). Bingham donated ie money to the Democratic National ommittee. According to the watchdog roup, the committee transferred the nds to the Kentucky state party, hich used the money to buy television ds backing Sloane. Individuals are only allowed to give a total of $25,000 to all campaigns and $2,000 to any one candidate in each two-year election cycle. But contributions to party organizations are not subject to the limits.

SPACE

Vice-President Dan Quayle, who made headlines with speculations about life on Mars, is bidding for a bigger role in U. S. space policy. Quayle, head of the National Space Council, is riding herd on NASA to implement the critical recommendations of an independent advisory panel. He has ordered the panel to reconvene in six months for a fresh assessment of the space agency's performance.

CABLE

The Bush Administration is stepping in where Congress feared to tread. Before adjourning, the Senate derailed legislation that would have restored the power of communities to regulate local cable television rates. Now, the Federal Communications Commission is writing rules that would allow local regulation wherever "effective competition" does not exist. The FCC hopes to have the rules in place by May. But cable companies, free of local price controls since passage of the Cable Communications Policy Act of 1984, are likely to mount a stiff legal challenge to the reregulation effort.

BRETON LITTLE/HALES

DON'T LOOK NOW, BUT IS THAT A JAPANESE JETLINER?

Not yet—but with new deals, Tokyo is revving up a more sophisticated civilian aerospace industry

When the Reagan Administration in 1988 agreed to help Japan develop a new fighter plane, it stumbled into a hornet's nest. Critics of the FSX project warned that Japan would use American technology to design and build its own commercial industry to compete with the U. S.

Now, with military sales flagging, Japanese aircraft and engine companies are gearing up in the civilian aerospace business itself. Production is still small, and Japan's top companies may never emerge as full competitors against Boeing Co. But in a series of new alliances and deals, the Japanese are putting the building blocks in place for a bigger, more sophisticated aerospace industry (table).

MITSUBISHI HEAVY INDUSTRIES IS ALREADY MAKING PARTS FOR BOEING

MUZZLED CRITICS. In early December, officials of Japan's Ministry of International Trade & Industry (MITI) met with representatives of General Electric Co. and Pratt & Whitney Co. and worked out most details of a futuristic jet-engine collaboration. A formal agreement is expected to be worked out in 1991. At the same time, three Japanese companies are close to agreeing to co-design and build 20% of the airframe of Boeing's new 777 jetliner. Meanwhile, long-time parts suppliers such as Kawasaki Heavy Industries are branching out, bolting from the Boeing camp to accept orders from Europe's Airbus Industrie consortium. "There are new alternatives open to the Japanese, and there's a new willingness to accept them," says Stanley Krueger, president of United Technologies Corp.'s Japan unit.

In contrast with the FSX fight, however, critics of collaboration are largely silent. What's muzzling debate is a new set of realities. Although Japan's objectives remain as ambitious as ever, U. S. companies need partners with deep pockets to cope with soaring engine and airframe development costs.

U. S. corporations now also f mounting competition from Euro State-backed Airbus has redoubled s efforts in Japan, for example, atter ing to chip away at American domina in that lucrative $2.8 billion-a-year r ket. In early 1991, as chairman of industry committee that advises Wa ington, UTC's Krueger will del a white paper to the Comme Dept. The message is simple the U. S. industry doesn't dee collaborative ties with Japan will forfeit global market sha

American companies shoul be forced into that corner, arg Clyde V. Prestowitz, presiden the Economic Strategy Insti in Washington. If U. S. compa are competing against gov ment-backed rivals, then the U government, for example, ou to encourage a U. S. consort to build jet engines. "Our com nies are being taken hostage the existence of a Japanese po

JAPAN GETS READY FOR TAKEOFF

- Several Japanese companies will co-design and make 20% of the airframe for the new Boeing 777. They already produce major parts for the Boeing 767
- Kawasaki Heavy agrees to supply parts to Airbus
- General Electric, Pratt & Whitney, and Rolls-Royce offer engine technology to Japan's hypersonic aircraft project
- Mitsubishi signs cooperation agreement with Germany's Daimler Benz, expected to result in engine-technology transfer
- Japanese companies own 23% of V2500 jet engine project with Rolls-Royce, Pratt, and others

DATA BW

by the lack of any U. S. policy," says stowitz. Washington is not likely to d that message, however, principally ause it is viewed as industrial policy. hus, U. S. companies will continue oeing down collaborative paths with an. GE and Pratt, along with Britain's ls-Royce PLC and France's Snecma, keenly interested in MITI's "hyper- ic jet engine." The eight-year, $215 ion project targets an entirely new pulsion system for a plane that ld fly five times the speed of sound, ping from Tokyo to New York in less a five hours. The Americans will le state-of-the-art engine knowhow MITI funding and insights into Ja- 's advanced materials and process nologies.

..ED TURBOPROP. Boeing's 777 con- t with a consortium of Japanese sub- tractors will be to co-design and pro- e a 350-seat, twin-engine jet. While it resemble Boeing's earlier subcon- ting arrangements, the Japanese will e a bigger piece of the project than r before. The inclusion of two new ts means they will be building all of plane's body except the nose cone. ing says the Japanese will probably d at least 200 technicians to Seattle. ITI says Japanese companies have no es of becoming "systems integra- " on the scale of Boeing or Airbus. icials point to MITI's failed attempt to duce and market the YS-11 turbo- p. This project folded in 1973 with 182 planes sold, leaving MITI holding st of the $100 million bill. Insists To- a Tsugami, deputy director of MITI's raft and ordnance division: "Ameri- s overestimate the threat of the Japa- e aircraft industry."

erhaps. But such companies as Mit- ishi Heavy Industries, Fuji Heavy In- tries, Kawasaki Heavy, and Ishi- vajima-Harima are hurrying to ersify from defense contracts, which ount for up to 16% of their sales. The t complete airplane the Japanese will in selling is a 75-to-100 seat commut- model being developed in another I-backed project, a successor to the uccessful YS-11 effort.

apan still faces some major hurdles ore it can become a major player. Its panies lack experience in integrating systems involved in assembling a ne and its engines, an area Boeing guards jealously. U. S. industry ex- tives also do not believe the Japanese close to mastering the technology of king engine cores, where tempera- es reach 2600F. But aided by their deals with U. S. and European com- ies, the Japanese are clearly revving their challenge.

by Neil Gross in Tokyo, with Dori Jones ng in Seattle, Paul Magnusson in Wash- ton, and bureau reports

IT'S CHRISTMAS, 1991, IN JAPAN ALREADY

The $4.5 billion buying spree may reveal next year's U.S. hits

Noriyoshi Shima isn't a Christian and has never lived in the West. But come Christmas Eve, you might not know it. The 43-year-old owner of a small Tokyo software company plans to spend that night at home with his family eating Christmas cake and singing carols in Japanese. The next morning, Shima's two children will find plenty of presents from Santa under their small tree.

TOKYO SHOPPERS: SMART GAMES AND APPLIANCES

While Christmas sales are bleak in the U. S. this year, they are reaching a zenith in Japan. Merchants there will merrily ring up $4.5 billion this season. That amounts to $38 per person in a non-Christian nation. And one-third of the sales are imports, estimates *Nikkei Gifts* Chief Editor Masaru Kiriyama. For Americans, this spree offers both a peek at new products that could be next year's smash hits and a jolly time for upscale U. S. exporters.

Without doubt the hottest product of the season is Nintendo Co.'s new Super Family Computer, which should hit American store shelves in time for Christmas 1991. These long-awaited "Famicons," driven by 16-bit microprocessors and priced at $192, offer more vivid colors and graphics, better sound effects, and more sophisticated games than their blockbuster 8-bit predecessors. Nintendo released its first 300,000 machines on Nov. 21 and has been shipping 60,000 each week—but it still can't keep up with demand.

TOYS FOR TRAVELERS. If Japanese youngsters get tired of watching Nintendo's Mario Bros. bounce on the screen, they can now create their own TV images with Sony Corp.'s hot new home computers. The $138 Graphics Computer lets users draw pictures on a TV screen, and the more advanced $192 Animation Computer allows these images to move around. Although both items were conceived by Sony employees in America and are imported from there, they arrived in Japanese stores first. The Graphics Computer, released in Japan last year, didn't reach American consumers until this summer. The Animation Computer, on sale in Japan since November, should land in the U. S. in 1991.

Tokyo's world travelers are busy snatching up Sony's new Data Discman. Not yet available in the U. S., this "electronic book" displays travel and hotel guides, foreign-language dictionaries, and other reference material, stored on an 8-centimeter disk. The $445 device premiered in Japan last June, and Sony officials say they cannot keep up with demand, despite doubling production each month. Sony now is lining up English-language publishers to produce disks jointly for the U. S. version.

Many Japanese consumers have "fuzzy logic" household items on their Christmas lists. Through special microchips and software, this new technology enables washing machines, for example, to determine how long to wash a particular load. And "fuzzy" vacuum cleaners can adjust suction when faced with heaps of dirt. Although Matsushita Electric Industrial Co. is winning kudos for its washing machines, it has no plans to export them. It has, however, started shipping its CompuClean upright vacu-

HASHIMOTO/SYGMA

um cleaners to the U. S. at a retail price of $340.

Among the foreign manufacturers cashing in on this year's Japanese Christmas, the biggest winners are in luxury and designer goods. Japanese executives are flocking to the country's 30 Brooks Brothers stores to buy this year's big item: traditional blazers, which have now become acceptable as business attire. And Ralph Lauren's 11 stores in Japan are packed with shoppers snatching up sweaters, Polo shirts, and neckties. But no gift is trendier than Tiffany & Co.'s line of gold and silver Open Heart jewelry. On December weekends, Tiffany's 24 outlets in Japan are mobbed by young men who are seeking to please their girlfriends. Failure to give a piece of Open Heart jewelry could doom a Japanese romance.

But what's Christmas without toys? Japanese kids are going bonkers over Milton Bradley Co.'s Twister, a game making a big comeback since its U. S. debut in 1965. Priced at $23, the g has players twisting all over themse on a colored mat. "Japan happens t a wonderful toy market," says Ge R. Ditomassi Jr., chief operating of of Hasbro International and Mi Bradley. "Each year, it is getting r and more important to us." And ap ing to Japan's generous spenders help make a company's Christmas c merry indeed.

By Robert Neff in Tokyo, with Joyce nathan in New York

Commentary/by Blanca Riemer

HOLD THE CIGARS, THE EC IS STILL IN DELIVERY

The mood at Palazzo Montecitorio, Rome's ornate parliament, was heady, if not gleeful. Margaret Thatcher was gone. Inside, her month-old replacement, John Major, was pushing a cheery pro-European line. He and the 11 other national leaders heading the European Community summit were taking unusually swift and decisive action. They sent emergency aid to the Soviet Union, defied the U. S. on trade, and reasserted their right to have their own meeting with Iraq on the gulf crisis.

The way Old World *spinmeisters* explained it, the Rome meeting foreshadows the EC's bold future as a budding superpower. With 1992 around the corner, Europe is trying to develop a new federation. By 1993, the EC wants to have a European Parliament with more legislative powers and a defense organization rivaling NATO. A central bank should be created by 1994, paving the way for a single, Continent-wide currency.

OLD HABITS. Europe is high on its potential for new power. But so has it been many times in the past, only to be bitterly disappointed when much-vaunted unity claims proved hollow. This time, European politicians are starting out on a long road where a gulf war, a recession, or any large disruption could lead to a detour or dead end. Ancient jealousies and old bureaucratic habits are still far more powerful than paper-shuffling Brussels officials care to admit. Already, the buoyant post-Thatcher mood is proving short-lived. While Britain's boyish-looking Prime Minister beamed compromise in Rome, it didn't take long for European Commission President Jacques Delors to sniff out a canard. He accused Major of planning to trick the EC with his new "counter plan" that would create a 13th currency, the European Currency Unit, and let the market decide if a single currency can work.

Creating a common defense policy looks even more difficult. With the U. S. military presence dwindling and NATO's role being reappraised, Europeans want to handle their own defense. Even such staunch supporters of NATO as Britain and Germany are backing France and Italy in the latest proposal to make the long dormant Western European Union a sort of Paris Pentagon.

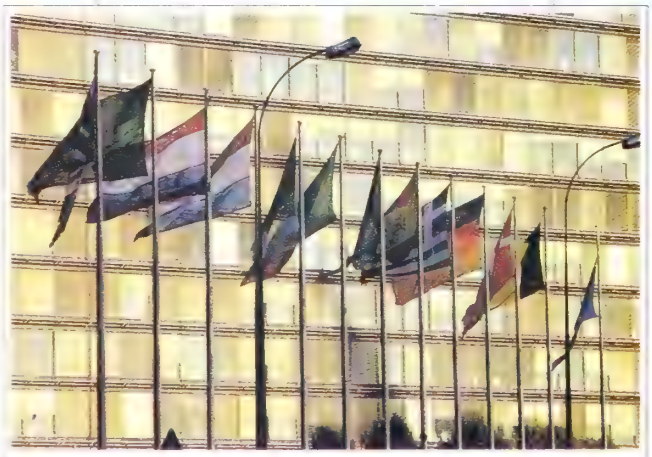
But in reality, the union is now little more than a collection of bureaucrats drafting military position papers. As the near-paralysis in the face of the gulf crisis proved, the EC's cumbersome decision-making process is useless when military force is needed in a hurry. And within days of the summit, EC nations backpedalled on their insistence to talk directly with Iraq, sh ing how little stomach they have hardball diplomacy.

Formulating domestic policy will a be sticky. In fact, few among the can agree on just what powers to g EC institutions. The British, for ex ple, want to limit extending the C munity Parliament's powers to o monitoring EC budget expenditu

And while French Social are quietly pushing Bruss to adopt a sweeping indust policy, the British want vest the European Court Justice with the power to p ish those, such as the Fre who are foot-dragging free-market reforms.

NEW REALIST. Europe's lo ing recession isn't help things either. France, Ger ny, and Spain—some of biggest backers of a sin currency—are now turn lukewarm, casting doubt whether a central bank can created by 1994. Even Fre Finance Minister Pierre Be govoy is flirting with Major's sugg tion that the EC nations would be b ter off taking more flexible, in mediate steps before giving up fin cial management to a central bank.

With even the gung-ho French le ing toward Major's more modest ag da for the EC, there's a chance that British Prime Minister may evolve i what Europe badly needs: a leader w can bring the big dreamers down earth. That used to be Marga Thatcher's role, even though her ab sive style put off many on the Co nent. Without such leadership, quest for a new European identity remain as elusive as ever.



BRUSSELS' BRAVE NEW UNITY IS ALREADY SHOWING STRESS

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EDITED BY JOHN PEARS

THE RIFTS IN ISRAEL MAY POINT TOWARD A PALESTINIAN STATE

Though overshadowed by the crisis in the Persian Gulf, mounting violence in Israel is deepening the polarization between Israelis and Palestinians. The government of Prime Minister Yitzhak Shamir faces pressure to cordon off the West Bank and Gaza Strip. Yet such isolation could lay the groundwork for the eventual creation of a Palestinian state.

The killing of three Israelis in Jaffa on Dec. 14 by workers from Gaza is already disrupting economic links between Israel and the occupied territories. In recent days, Israeli politicians at both ends of the political spectrum have called for closing the borders with the disputed territories. Israeli employers have already laid off some 10,000 Palestinians who commuted to jobs in Israel from the West Bank and Gaza. Meanwhile, Rafael Eitan, a Knesset member for the right-wing Tsomet Party and a former army chief, insists that all Palestinian workers should be barred. And on the left, Yossi Sarid, leader of the Citizens Rights Movement, calls for restoring the Green Line—the closed boundary that separated Israel from Arab-ruled lands before 1967.

JERUSALEM RELIES ON ARAB WORKERS

BORDER CROSSINGS. Shamir's Likud Party government is unlikely to shut the border altogether, because that would mean abandoning the party's hope for establishing the coexistence of Israelis and Arabs—a basic rationale for Israel's rule over the territories. Furthermore, sealing the border would halt commuting by 110,000 Arabs to legal jobs in industry, construction, and services, and by an additional 70,000 who work illegally. Israel needs at least 50,000 Palestinians to build housing for a flood of Soviet immigrants. If commuting between Israel and the territories is cut off, one-half of Gaza's workers and one-third of the West Bank's will be denied livelihoods. The result could be even more violence.

Nevertheless, Tel Aviv's maverick Likud mayor, Shlomo Lahat, has fired Palestinian city employees and is calling for a ban on all workers from the territories. He also favor Palestinian state in Gaza and the West Bank. Yossi Beili Knesset member for the opposition Labor Party and a for deputy finance minister, is urging Israel to withdraw f Gaza and let Palestinians set up a state there.

But in a new twist, Israeli administrators may soon b issuing permits for job-creating foreign investment in the t tories, which they often discouraged in the past. The Ita government proposes to finance a citrus-processing plan Gaza. In addition, Italy recently agree buy $17 million worth of olive oil from West Bank. Sarid of Citizens Rights such expanded economic activity as a toward statehood.

Washington also has strong cards play. Israel desperately needs U. S. ai help absorb the influx of Soviet J That gives Washington potent leverag deter Jewish settlements in the territo and prod Israel to make peace with Arabs. To finance housing for the comers, Shamir is expected to seek $3 lion to $4 billion in U. S. loan guarant on top of $400 million already approv

If the gulf crisis subsides, Americans, Soviets, and conse tive Arabs are planning to advance new formulas for an A Israeli settlement. President Bush wields enhanced influ in the Mideast through his anti-Iraq coalition and close with Moscow. Under discussion: recognition of Israel by allies such as Saudi Arabia and Syria, and moves towa Palestinian state. Says a Saudi official: "I'm more optim than ever before that there could be a resolution of the A Israeli problem. It would involve giving the Arabs a home giving the Jews a home." Ironically, the stage for that is b set on the ground in Israel, the West Bank, and Gaza by violence separating Palestinians from Israelis.

By John Rossant in Rome, with Neal Sandler in Jerus and Ruth Pearson at the U. N.

GLOBAL WRAPUP

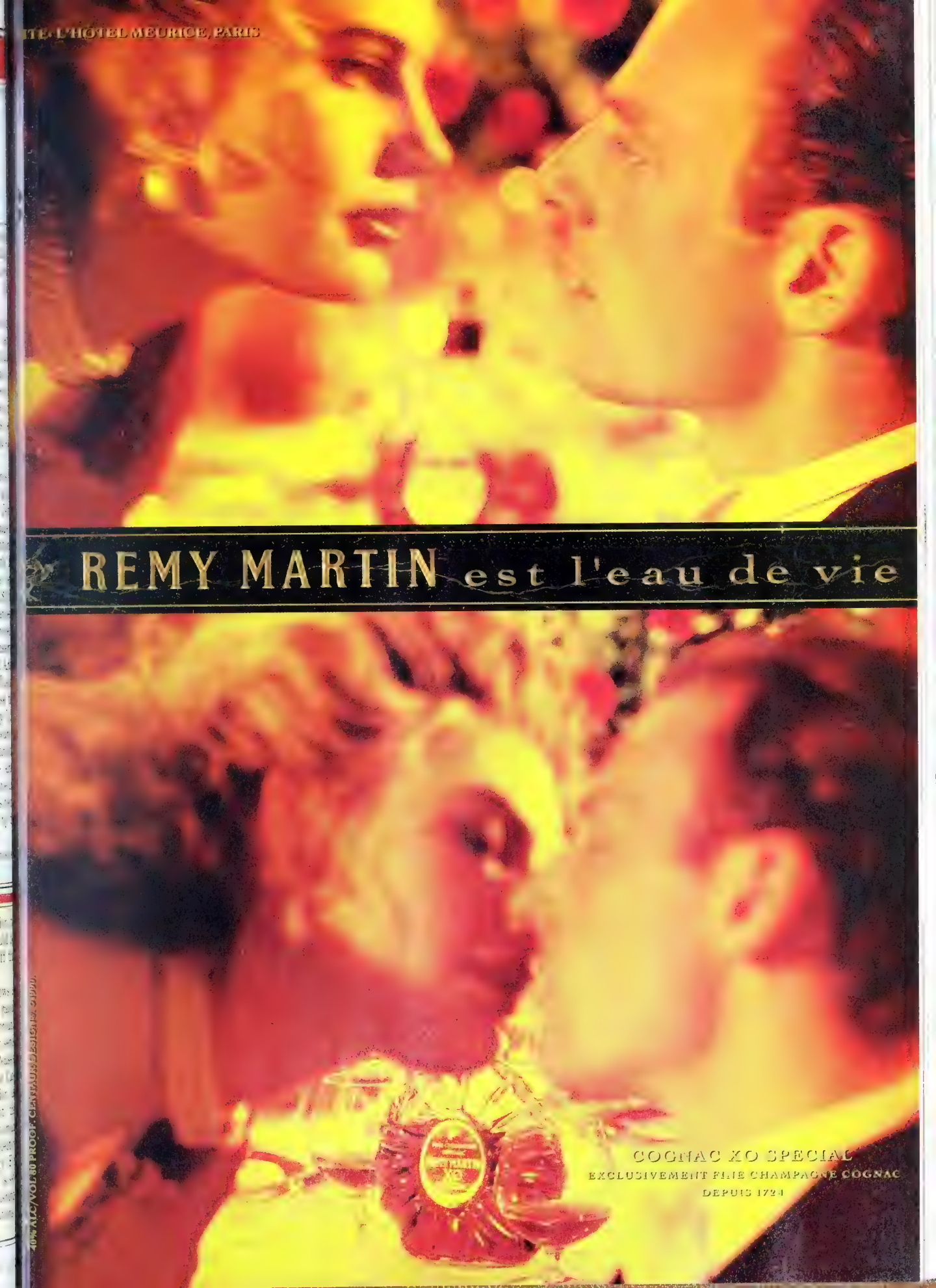
MEXICO

Rust Belt members of Congress are forming a tacit alliance with Mexican nationalists and leftists to put a brake on the proposed U. S.-Mexico free-trade agreement. On Dec. 14, Representatives Don J. Pease (D-Ohio) and Terry L. Bruce (D-Ill.) sent a letter to President Bush, signed by 13 Democratic members of the House Ways & Means Committee and 24 other legislators. The letter argues against giving a trade treaty with Mexico the "fast track" treatment, which requires a yes-or-no vote by Congress without amendments after limited debate.

Pease's office circulated it with a copy of another letter sent to the head of the Mexican Chamber of Deputies by Mexico's former Treasury Secretary, Jesús Silva Herzog, novelist Carlos Fuentes, and four other prominent Mexican intellectuals. All are critics of President Carlos Salinas de Gortari. The Mexicans echoed U. S. lawmakers in urging a go-slow approach.

The letters are a sign that the emerging trade negotiations are likely to be surrounded by highly charged political issues. For example, the American legislators want to link bilateral drug cooperation to the trade talks. They also are raising concerns on such issues as immigration and the credibility of Mexican elections. Five more Ways & Means votes—in addition those of the letter's signers—could enough to keep an agreement off t fast track.

What the Mexicans' letter shows that expanding economic ties are rap ly making Washington a battlegrou for Mexico's domestic politics. By se ing a copy of their letter to Peas group, the Mexicans targeted it to C itol Hill and U. S. public opinion well. Among topics they want t trade talks to address is "hum rights"—an issue that includes elect al fraud by Mexico's ruling party. its part, the Salinas government is s ting up a special mission in Washi ton to oversee the trade negotiation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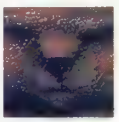
BusinessWeek

INTRODUCTION *page* **72**
Despite the recession, fear of war in the Persian Gulf, and bear markets rampant in most stock exchanges, 1991 could offer a wide window of opportunity to investors.

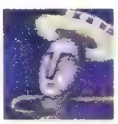
THE ECONOMIC FRAMEWORK *page* **74**
The good news about the downturn is it may not be too harsh. The bad news is the bounce-back could be weak. And Washington—except for the Fed—isn't likely to help much.



STRATEGIES FOR STOCKS *page* **82**
It's hard to be bullish in a forest full of bears. But the current economic slump may be the perfect time to buy, and there are plenty of stocks ripe for the picking.

WHERE TO INVEST IN 1991

THE INVESTMENT SPECTRUM *page* **110**
From munis to Matisses and from bullion to buildings, solid opportunities abound in real estate, bonds, options, futures, precious metals, fine art . . .



THE BEST OF 1990 *page* **144**
There weren't many shining lights last year, but even the worst years produce champions. Our annual roundup of the investment year's best and worst performers.

THE INVESTMENT SCOREBOARD *page* **149**
Don't go shopping for stocks without boning up on the numbers. For 900 companies, BW's Investment Outlook Scoreboard has all the stats the savvy investor needs.

IN THE MIDDLE OF A DARK WOOD...

DESPITE RECESSION, INVESTORS HAVE RICH OPPORTUNITIES IN 1991

Everybody knows a story about someone who once made a killing investing in something that no one else wanted—and hanging on until demand turned around. Great fortunes were made by those who bought New York real estate in 1975, government bonds in 1981, or stocks in 1982.

With recession in the U. S. and bear markets rampant in nearly all of the world's stock exchanges, 1991 could well be one of those windows of opportunity that investors will look back on years from now, wishing they had had the foresight to have seized the day.

While a bleak economic landscape offers great opportunities, you need to be picky, picky, picky. Bull markets are so powerful that they often mask foolish errors—and you make money nonetheless. Bear markets are never so forgiving.

DEEP SOUNDINGS. So in these perilous times, investors need all the help they can get. That's where BUSINESS WEEK's 1991 Investment Outlook comes in.

First, BUSINESS WEEK takes soundings on the health of the economy. Our survey of economists offers some reassurance that the recession won't be too severe (page 74). On the other hand, the rebound from the modest recession won't be too robust, either.

Don't look to Washington for much help in fighting the slowdown sickness (page 78). The Bush Administration has no solutions to offer, and Congress has little appetite for another budget battle. True, the Federal Reserve Board has pared interest rates to pep up the economy, but further cuts by the central bank could be slow in coming.

Still, recessions and bear markets don't last forever. So rather than worry about whether they'll last four more months or eight more months, spend your time plotting strategy for the time when prospects brighten. Believe it or not, one of the best moves for long-term investors is to accumulate stocks in recessions (page 82). In fact, that's what many investors are already doing. Though equity mutual funds will have their poorest returns since 1974, investors are continuing to pour money into them (page 110).

For those who like to pick stocks on their own, there's plenty of help. Several stock market pros give suggestions on what to buy (page 106). Stocks for speculation lay out the bets for the bold (page 86), and new varieties of options and warrants give you fresh avenues to make your moves (page 132). If you prefer stocks with a good dividend—ones that can help give you a good night's sleep—we'll tell you where to find them, too (page 84). Our mammoth Scoreboard—which, among other things, reports on earnings forecasts for 900 companies—is also a fertile field to prospect for ideas (page 149). Also is the feature on 1990's winners and losers—and yes, there were winners (page 144).

RUN-DOWN DYNAMO. Overseas, the stock markets have been even more battered than in the U. S. (table). That could make them good places to hunt for opportunities. The Japanese stock market, that financial dynamo of the 1980s, is still ailing, but it has been beaten down far enough that bargain-hunters are starting to prowl (page 90). Europe's markets, which first while soared to giddy heights over the fall of the Iron Curtain have also been doused with cold water (page 88). So much froth has been beaten out of the countries' funds that they now offer some attractive buys (page 92).

Though the bond market has rallied in recent weeks, the weak state of the economy could lead to still lower interest rates and higher bond prices in the new year (page 114). With tax rates creeping up once again, investors have an increasing appetite for municipal bonds. Much income from the bonds is safely out of the reach of the Internal Revenue Service (page 120). The junk-bond market, however, is still a no-man's-land for most investors (page 118).

Of course, the investment world goes beyond stocks and bonds, and most of the other trading corners are in bear markets, too. The recent news about grain sales to the Soviet Union has helped commodity markets much (page 124). Real estate is still a disaster, with many buyers from better days learning that a man's home can be his headache (page 138). Commercial properties look even worse. Gold seems to have lost its luster: Even the prospect of war has perked it up (page 142). The art market is a mixed picture, with artists' very best pieces fetching high prices—but second-tier works, even van Gogh's, falling short of minimum bid at auction (page 140).

What 1990 taught investors is that markets move in both directions. Painful as they are, the downturns should be viewed as a cleansing mechanism that washes out the excesses from the market system. When the process has run its course, the fast-buck crowd may have lost a bundle. But if you took a slower, more deliberate and long-term approach to investing, you're still well in the black.

So keep your cool, pick your entry points, and read on.

By Jeffrey M. Laderman in New York

HOW STOCKS FARED AROUND THE WORLD

	1990 percent change* Local currency	Dollars
HONG KONG	8.1%	8.1%
LONDON	-10.8	6.4
FRANKFURT	-17.5	-6.4
TORONTO	-18.4	-18.2
AMSTERDAM	-19.4	-7.7
PARIS	-20.5	-9.1
ZURICH	-21.6	-5.0
SYDNEY	-22.2	-20.0
MILAN	-22.3	-11.9
TOKYO	-37.2	-32.5
NEW YORK**		-6.6

*Through Dec. 18 **Standard & Poor's 500

DATA: BRIDGE INFORMATION SYSTEMS INC. B/W

ILLUSTRATIONS BY TOM CURRY

THE RECESSION MAY BE MILD— AND THE RECOVERY JUST AS MILD

Economists say the upturn will be soft because of the excesses of the '80s

Welcome to the kinder and gentler recession. Yes, the U. S. economy will begin 1991 mired in its ninth postwar downturn. But according to BUSINESS WEEK's survey of 50 economists from across the nation, it won't get in too deeply, and it won't be stuck there for long. The recovery will not be as kind as those in the past, however. It will be muted by the lingering effects of the previous decade's excesses.

The economy will begin crawling out of recession by spring, say the forecasters (table). Turnarounds in two key areas that helped bring on the downturn will fuel the recovery: The Federal Reserve Board will continue to ease credit, and the Mideast crisis will be over—one way or another. However, the economists believe that the upturn will be blunted by the heavy debt burden of consumers and businesses and by the problems that this overleveraging has created for monetary and fiscal policy.

The forecasters expect economic growth of only 0.7% in 1991, not much better than the projected 0.5% gain in 1990. And most expect the jobless rate to top out above 7%. That's bad news for the Bush Administration, since the recession could easily push the budget deficit to $300 billion. And that's if the consensus is right about a mild downturn.

DRIVING FORCE. Investors should be especially wary, though. Consensus forecasts can be notoriously inaccurate when it comes to turning points in the business cycle. Moreover, says David A. Levy of Levy Economic Forecasts, "our basic view is that this is unlike any past recession." Indeed, instead of a glut of inventories, there is a glut of buildings. And instead of price pressures, there are financial pressures. How these differences play out will determine just how kind and gentle this recession really is.

Understanding how the economy fell into trouble helps explain how it will get out. Donald Ratajczak of Georgia State University lists three factors that killed the expansion: the Fed being too restrictive, the regulators squeezing the banks, and the oil shock. In all three cases, consumers were the big losers. Consumers were the economy's driving force throughout the 1980s. "N they're driving us into ground," says Ratajczak. getting that sector back on feet will be critical.

A resolution of the gulf sis will bring down ene prices and help to restore sumers' purchasing po and confidence. Econom see three Mideast scenarios quick, negotiated settlem would ease the recessio pain. A continued stalem would drag out the suffer Or a war would explode cr prices, hitting the econo with a second oil shock.

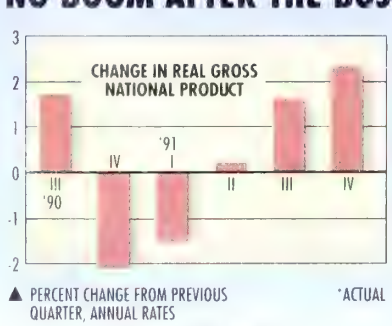
NO EASY ANSWERS. In event, oil prices eventua will fall back, helping to w out any lingering fears of flation that the recession failed to squelch. Redu price pressures would give Fed even more latitude push down short-term inte rates. That would allow ther declines in long-te rates that are vital to revi credit-sensitive sectors.

But it might not be easy. The economy had p lems well before Iraq marched into wait. One of the biggest is the sagg market for real estate. Not only weak home prices leaving consum feeling poorer but the overhang of c mercial buildings is souring the portfolios of many banks.

The troubles in real estate are one facet of a much broader probl "My main concern is the fragility of financial system," says James Solloway of Argus Research. Finan stress is usually a hot topic durin recession. But this time, it is so ac and so pervasive that it is shaping outlook and even influencing Fed pol

The Fed has been cutting rates to the economy moving, including lower the discount rate to 6.5% on Dec. 18. funding problems at many banks h stymied lending, and the overleverag of many companies and consumers hurt borrowing. "It may take longer the Fed's easing moves to affect

THE CONSENSUS FORECAST: NO BOOM AFTER THE BUST



WHAT ECONOMISTS ARE PREDICTING FOR 1991

	Percent change in real GNP (annual rate)					Real GNP	Consumer prices	Prime rate	Unemployment rate
	1990	1991				Percent change		1991	1991
	IV	I	II	III	IV	IV Q '90-IV Q '91		IV Q	IV Q
IORMA PACE ECAP	-1.7	1.2	4.1	4.4	4.9	3.6	3.7	10.3	5.5
AMES F. SMITH University of North Carolina	1.1	0.7	2.2	3.7	5.5	3.1	3.1	8.0	5.4
AUL HYMANS RSQE, University of Michigan	-1.2	0.8	2.6	3.6	3.0	2.5	5.2	9.5	6.1
AMES E. ANNABLE First Chicago	-1.8	-0.6	2.2	3.2	2.7	1.9	3.1	8.9	6.1
LOYD T. O'CARROLL Reynolds Metals	-2.0	-2.0	1.5	4.3	3.9	1.9	3.8	9.0	6.6
ARRY J. KIMBELL WEFA	-1.6	-0.6	1.3	3.3	3.2	1.8	4.0	10.0	6.5
ICHARD S. PETERSON Continental Bank of Ill.	-1.2	1.0	1.8	2.2	1.9	1.7	3.8	9.8	6.3
HEODORE H. TUNG National City Corp.	-1.4	0.5	1.4	2.6	2.0	1.6	4.6	9.3	6.4
OBERT J. BARBERA Shearson Lehman Hutton	-4.3	-2.7	-1.9	5.4	5.3	1.5	2.8	8.0	7.2
AUL GETMAN Regional Financial Review	-2.8	-1.7	1.6	2.9	3.2	1.5	4.1	9.3	6.7
AMUEL D. KAHAN Fuji Securities	-1.8	0.0	2.5	1.9	1.5	1.5	2.6	8.5	6.5
OBERT G. DEDERICK Northern Trust	-2.0	-1.6	1.0	3.1	3.3	1.4	3.9	9.3	6.5
. ERICH HEINEMANN Ladenburg Thalmann	-2.2	-4.0	-0.6	4.8	5.3	1.4	2.7	8.5	6.0
ICHARD D. RIPPE Dean Witter	-3.0	-0.6	2.5	1.6	2.2	1.4	3.6	8.8	6.4
AY C. FAIR Fairmodel Macro	0.7	0.6	1.0	1.4	1.8	1.2	4.7	9.0	5.2
OBERT H. VATTER Metropolitan Life	-2.4	-2.2	0.4	3.3	3.4	1.2	4.3	9.0	6.3
OHN M. GODFREY Barnett Banks	-3.6	0.3	-1.5	2.3	3.1	1.1	3.2	9.3	6.9
ORDON R. RICHARDS National Assn. of Manuf.	-2.6	-2.5	-0.8	2.0	2.9	1.1	3.7	9.0	6.9
ICHAEL W. KERAN Prudential Insurance	-2.0	-3.0	3.0	3.0	1.0	1.0	4.5	9.3	6.7
LAN C. LERNER Bankers Trust	-1.5	-0.5	1.0	1.5	1.5	1.0	3.7	9.3	6.2
APAN MUNROE Pacific Gas & Electric	-1.8	-2.0	0.0	2.8	3.0	1.0	4.5	9.5	6.9
. HEATHER DILLENBECK U.S. Trust	-2.0	-1.0	1.0	1.5	2.0	0.9	4.1	8.8	6.5
ICHAEL R. ENGLUND MMS International	-1.3	0.0	1.0	1.0	1.5	0.9	4.0	9.5	6.3
OGER BRINNER Data Resources	-2.1	-2.0	-0.3	2.4	3.3	0.8	3.5	9.3	7.0
AVID L. LITTMAN Manufacturers National Bank	-1.4	-0.6	0.9	1.5	1.2	0.8	4.0	8.8	6.4
ICHARD B. HOEY Barclays de Zoete Wedd	-3.2	-2.8	-1.6	3.4	4.0	0.7	4.0	9.0	7.5
ORMAN ROBERTSON Mellon Bank	-3.0	-1.8	0.8	1.8	2.1	0.7	4.0	9.3	6.7
UBREY ZAFFUTO AZ Advisory	-1.4	-1.5	-0.5	1.9	2.7	0.7	4.1	9.0	6.5
ICHAEL EVANS Evans Economics	-2.0	-0.9	1.0	1.3	0.7	0.5	4.8	9.0	6.9
ONALD RATAJCZAK Georgia State University	-2.1	-1.3	-0.3	2.0	1.6	0.5	3.7	8.5	6.7
YNN O. MICHAELIS Weyerhaeuser	-1.7	-0.6	0.5	0.6	1.1	0.4	4.1	9.2	6.4
ICHARD D.C. TRAINER Bank of Tokyo	-2.7	-1.4	0.4	1.1	1.4	0.4	4.8	9.9	6.6
AURENCE H. MEYER Laurence H. Meyer & Assoc.	-2.4	-2.6	-1.2	2.1	2.9	0.3	3.3	9.0	7.1
ICHOLAS S. PERNA Shawmut National Bank	-3.1	-1.8	-1.9	-1.4	5.4	0.3	3.7	8.5	7.8
AVID G. HENSLEY University of Calif. at L.A.	-2.4	-2.9	-2.1	0.8	5.3	0.2	2.6	8.4	7.1
LLEN SINAI The Boston Co.	-3.0	-2.3	-0.3	1.5	2.0	0.2	4.4	8.4	7.0
OSANNE M. CAHN First Boston	-0.9	-1.2	0.2	0.7	0.8	0.0	4.5	9.5	6.5
ICHARD W. RAHN U.S. Chamber of Commerce	-1.9	-1.7	-0.7	0.9	1.6	0.0	4.8	9.0	7.1
AMES R. SOLLOWAY Argus Research	-3.1	-1.0	-1.9	0.0	3.0	0.0	3.8	9.0	7.1
AVID H. RESLER Nomura Securities	-3.2	-3.0	-1.0	1.5	2.2	-0.1	2.5	9.1	7.2
OHN D. WALTER JR. Dow Corning	-1.9	-2.3	-0.9	1.0	2.0	-0.1	3.9	8.5	6.7
URTON ZWICK Lord, Abbett & Co.	-2.4	-2.1	-0.5	-0.1	2.0	-0.2	4.3	8.8	7.0
. PATRICK BRADLEY PNC Financial	-2.5	-2.2	-1.2	-0.5	2.5	-0.4	4.3	9.0	6.9
RANCIS H. SCHOTT Equitable Life	-2.5	-1.8	-0.4	0.5	2.0	-0.5	4.5	8.5	7.0
OBERT L. MARKS Siff Oakley & Marks	-1.2	-1.0	0.1	-0.5	-1.2	-0.6	4.8	9.2	7.2
.ACY H. HUNT CM&M Group	-3.1	-2.2	-1.5	0.2	0.4	-0.8	6.2	9.2	7.3
DWARD S. HYMAN JR. Cyrus J. Lawrence	-2.0	-2.0	-2.0	0.0	1.0	-0.8	3.2	8.5	7.0
AYMOND T. DALIO Bridgewater Group	-3.2	-2.4	-0.4	-1.2	-3.1	-1.8	5.0	6.5	7.6
AVID M. JONES Aubrey G. Lanston	-3.0	-4.5	0.5	-2.8	-0.3	-1.8	5.0	9.0	7.5
AVID A. LEVY Levy Economic Forecasts	-1.5	-3.5	-3.5	-3.5	0.0	-2.6	1.5	7.5	8.5
CONSENSUS	-2.1	-1.5	0.2	1.6	2.3	0.7	3.9	8.9	6.7

economy," says Solloway. Also, the central bank will have to move cautiously to prevent a crash of the dollar and hold the line on inflation. All this could drag out the recession.

HEAVY TAXES. Clearly, monetary policy will be the economy's only guiding hand in 1991. "Fiscal policy is hopelessly out of sync with the economy," says Lacy H. Hunt of CM&M Group Inc., a primary dealer in government securities. On top of the $21 billion that new federal taxes will drain from spending, Hunt says that 33 states are also raising taxes by about $10 billion. Moreover, many of the government's spending and income-support programs that usually kick in during a recession and help to soften its blow were gutted during the 1980s.

But despite all the worries, the economy does have some things going for it. "We expect a mild recession that is much more concentrated in final sales than in inventories," says Burton Zwick of the investment firm Lord, Abbett & Co. That's because stock levels are exceptionally low. In the past, getting excessive inventories under control has accounted for about half of the drop in economic growth during a recession.

In addition, foreign demand will offset some of the weakness in domestic spending. "Exports will be the strongest part of the economy," says Lloyd T. O'Carroll of Reynolds Metals Co. A cheaper dollar will bolster foreign demand, but exports in 1991 will also depend on growth in the rest of the world. With many foreign economies already slowing down, most forecasters expect exports to grow close to their 1990 pace of about 5%.

> On top of the $21 billion that new federal taxes will drain from spending, several states are also raising taxes

Lean inventories and foreign demand will limit the recession's blow to manufacturing. And since industrial companies must continue to modernize to be competitive, they will keep the weakness in capital spending in 1991 from turning into a rout. Heavy leverage shouldn' a factor in manufacturers' spen plans, because most of the debt of 1980s was taken on by service and o less cyclical industries.

For the economy, that's both a bl ing and a curse. Services have given economy some stability during past cessions, but this time, much of downturn is concentrated in finance tail and wholesale trade, and busi services. Because those sectors acc for 40% of private payrolls, ser workers will feel this recession n than they have in the past. On the side, recession will help take the out of service wages and prices, w have been the main fuel under inflat Forecasters expect consumer price rise a modest 4%.

However, low inflation might be only good thing about the outlook '91. No matter how kind the recessio still means lost output and jobs. The worry? A rip in the economy's fra financial fabric could make the reces a lot crueler than forecasters expec

By James C. Cooper and Kathleen M gan in New York

HEY, DOOMSAYERS: 'WE AIN'T BUYING A RECESSION'

NORMA PACE

Norma Pace doesn't look like a rebel. But the president of New York-based Economic Consulting & Planning Inc. is quite a maverick in her outlook for 1991. "We ain't buying a recession," says Pace. In fact, she thinks that the expansion will get back on track in the first quarter and that gross national product could grow by a healthy 3.6% for all of next year. If she's right, 1991's economy will be the strongest since 1985.

Why such optimism? Pace, who is on the boards of six corporations and a member of the U.S. Postal Service's Board of Governors, thinks the gloom of late 1990 was caused by the Mideast crisis. And she expects that to be over by early 1991, either from peaceful gotiations or a quick war. A resolut would yield a better business clim and cheaper oil, she believes—perh as low as $15 per barrel.

An end to the gulf standoff and proved inflation expectations will bri a drop in interest rates, which will, turn, jump-start demand, predi Pace. No one sector will boom n year, but she does expect gains in ports, business investment, consum spending, and some recovery in hou building. "The little pluses add up t big GNP number," she says

Others agree that 1991 may not as gloomy as many observers have p dicted. James F. Smith, professor finance at the University of North C olina, is counting on an export bo and a surge in business investment keep the economy on an even keel.

FAITH IN THE FED. Both Pace and Sm believe that lower inflation will lift mand. Pace points to the gains th companies have made in cutting cos And Smith credits the Federal Reser Board: "The efforts of the Fed in t past 3½ years to get inflation will nally bear fruit."

Clearly, these forecasts are way o of line with the consensus recessi scenario. But if the expansion cont ues, Pace and her fellow optimi won't look like rebels—they'll look li geniuses.

By Kathleen Madig

AT THIS TABLE YOU NEED AN APPETITE FOR SUCCESS.

On your way to the top, there's no such thing as a free lunch.

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Washington Policy

IT'S KUWAIT-AND-SEE TIME IN WASHINGTON

The Fed is taking action on recession, but elsewhere the official policy is paralysis

It hasn't even begun, yet 1991 is already shaping up as one year Washington would just as soon forget.

The economy is well on its way into recession. Top policymakers in the Bush Administration and at the Federal Reserve Board won't yet use the "R" word, but they concede that a downturn has begun. While they argue over the nature of the unfolding slump, officials agree on one thing: The crisis in the Mideast will have more impact on the economy than anything policymakers can do.

'NEW PARADIGM.' Bereft of much ability to direct the near-term course of the economy, the White House is struggling to put together a coherent set of domestic policies. Conservative young Republicans are heating up the think-tank circuit with their talk of "empowerment"—government policies that bypass social-spending bureaucracies to put cash, vouchers, and the right to choose services directly in the hands of the poor. The ideas—educational choice, public-housing tenant management, rent vouchers, and enterprise zones—aren't fresh, but the conservatives hope that the "new paradigm" label will carry this version of Great Society Lite onto Bush's domestic agenda.

The President's Jan. 29 State of the Union speech will ring with the empowerment rhetoric, and his budget may include some proposals. But Budget Director Richard G. Darman, who has lashed out at conservatives' "new-newism," isn't likely to put much cash behind the ideas. And in Congress, opening such issues as housing and enterprise zones may simply empower the same old interest groups. Conservatives "could get steamrolled by constituencies who up with double funding, rather t elimination of the programs," says a eran GOP aide on Capitol Hill.

With lawmakers still shuddering from the S&L debacle, Brady's bank-reform plans may go nowhere

Then there's the Administrati avowed top domestic priority—a t ough overhaul of banking and the fi cial services industry. Treasury Se tary Nicholas F. Brady plans to un changes in deposit insurance, bank p ers, and regulation early in the year. the theoretical benefits of reforming banking system may be lost on Cap Hill, where lawmakers are still shud ing from the ever-growing S&L deba And attempts at financial reform hav grim history in Washington. For past decade, banking reform propos have served mainly to generate c paign contributions as lobbyists banks, securities houses, insurers, real estate interests battled to a blo and expensive stalemate.

On other fronts, the Administra will try in early 1991 to retrieve its tered trade policy from the rubble

ssels, where overly itious talks among nations collapsed in rness and bickering ecember. But with- concessions from peans on farm sub- s, the American-led rt in Brussels will way to bilater- rade skirmishing ng the European munity, Japan, de- ping nations, and U. S. In that case, Administration will e talks with Mexico Latin America on a hemispheric trade zone its top priority. Even so, e is no reason to think that debt- pped Latin American nations can re- e the consumers of the New Europe. a U. S. economy increasingly depen- on exports, that's bad news.

NG UP. Such a thin policy mix means for investors, most of the economic y news from Washington in 1991 be sound and fury, signifying noth- The forces that will move interest s and equities will emanate from ts far removed from the capital— the consumers and producers of American economy, from the Persian , and from the bourses of Europe Japan. The harsh clash of a slump- economy and climbing budget defi- (chart) will make Washington's pow- l officials more spectators than ers as the year unfolds.

ose power brokers 't accept their demo- quietly, of course, the racket they e will intensify if the ssion turns nasty. Chairman Alan enspan has been ing increasing pres- to speed up the cen- bank's easing of in- st rates, and on Dec. the Fed cut the dis- nt lending rate one- percentage point, to %. The Fed cited akness in the econo- constraints on cred- and slow growth in monetary aggre- es" in its decision. servative Republi- s in the White House Congress are press- Bush to charge up itol Hill for a third at cutting the tax on capital gains, time as anti-reces- policy. Democrats e their own idea: cut the Social Security payroll tax to stimulate spending. But neither of these plans will get far if, as most economists forecast, the recession is shallow.

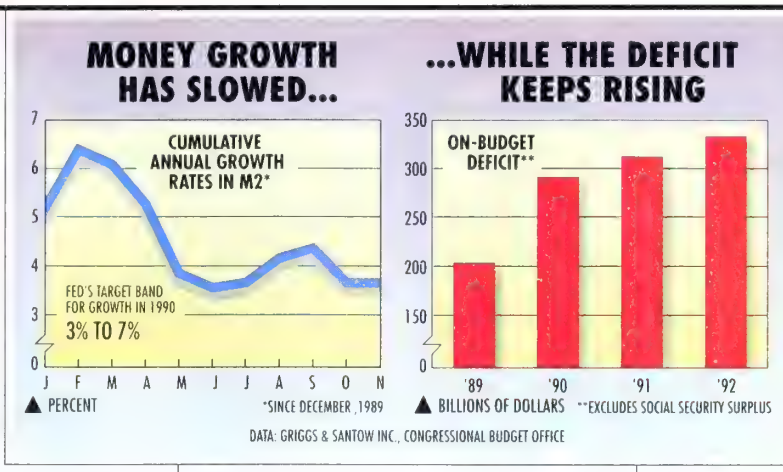
For now, that's the Administration's expectation. But Council of Economic Advisers Chairman Michael J. Boskin and other top Washington economists are holding their breath to see how the showdown with Saddam Hussein is resolved. Greenspan argues that the soft-landing economy of 1990 could have escaped recession if not for the spike in oil prices and the confidence-crushing uncertainty created by Hussein's seizure of Kuwait. If the crisis breaks by early February—either with Saddam's withdrawal or a U. S. victory in a short, decisive war—"the economy won't be driven so far into the tank that you have a whole new set of problems," says a senior White House aide. A lingering stalemate, however, could deepen the downward spiral.

Uncertainty about the gulf has also slowed the Fed's response to the economic slowdown. In the days after Saddam's invasion, Greenspan and his Fed colleagues warned that the spike in oil prices could be over within weeks. They didn't want to jeopardize their long-term fight against inflation by pumping out money to accommodate a transitory slowdown. Even now, if the crisis ends and oil prices fall precipitously, consumers would suddenly find themselves with more cash to spend—and more willingness to spend it. Fed officials don't want a lot of excess money in the economy to turn that surge into inflation.

That caution hasn't kept the Fed from easing. Fed officials note that they were cutting interest rates long before the economy started to slide. The discount rate cut capped a drop of three-quarters of a percentage point in the central bank's target rate for federal funds, or overnight loans of bank reserves, since Oct. 30. Further easing is likely.

ONE STEP AHEAD. But the slide in rates has been so gradual that money-supply growth actually slowed during 1990 (chart), and further rate cuts could come slowly. Even after November's 270,000-job drop in employment, many Fed officials argue that they don't see a "cumulative" unwinding in economic activity. "You can't really call it a recession at this stage of the game," says Fed Governor John P. LaWare. "Lots of the things that are normally present in a recession—interest-rate and inventory buildups—are missing." Usually, a recession will slam the manufacturing sector through an inventory cycle: Factories keep operating after sales fall, then have to shut down suddenly to work off large inventories.

This time, however, with quicker production cuts, manufacturers have managed to stay one step ahead of that cycle. Absent that risk, Fed officials do not see much danger of a



Greenspan will feel more pressure to ease interest rates

PHOTOGRAPH BY KATHERINE LAMBERT - HART BY ALBERTO MEJIA/BW

deep or prolonged recession.

And when the downturn is over—by midyear, in most economists' estimate—don't look for the Fed to stage a repeat of 1984, when the economy soared out of recession with 6.8% growth. A mild recession won't leave much slack in factory capacity or labor markets—the unemployment rate isn't likely to top 6.5%—and the central bank's inflation-fighters know that it wouldn't take many quarters of robust growth to reignite price hikes. Indeed, the Fed's inflation hawks, who in October voted against even tilting toward rate cuts, could be arguing for higher interest rates by June or July.

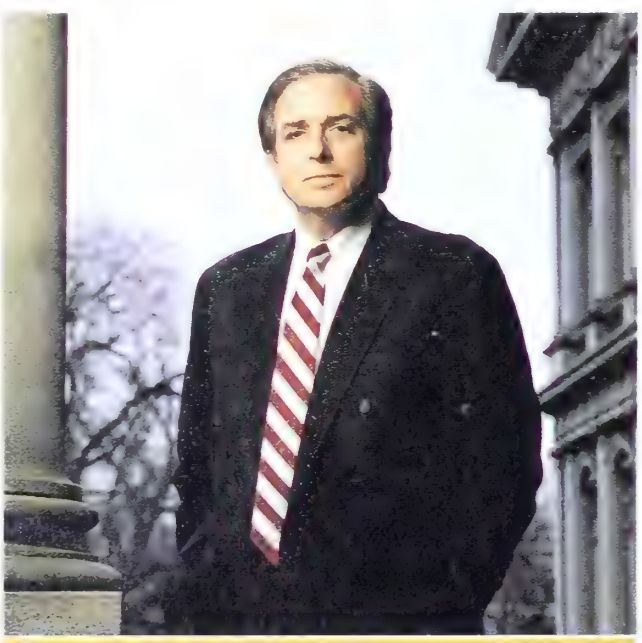
That could pose a problem for Greenspan, whose term as Fed chairman expires in August. Bush has been the most active Fed-bashing president in memory, and Administration economists don't try to hide the fact that they blame Greenspan and Saddam Hussein in roughly equal measure for the recession. Says one: "It's obvious that the Fed was fighting inflation when there wasn't any and ignoring the economy's weakness."

On the other hand, Wall Street has been been generally happy with Greenspan's gradualist monetary policy. And foreign investors like his tough anti-inflation talk. So the White House would risk a crisis of confidence in the financial markets if it changed Fed helmsmen during the recession—especially since the Administration isn't offering even a hint of anti-recession policy on its own.

SON OF SUMMIT. Fiscal policy, of course, is hogtied by the budget deficit. The painfully won deficit reductions passed in 1990 will be washed away as tax receipts plunge and spending for such "automatic stabilizers" as unemployment aid surges. This year's deficit, already projected at a record $320 billion, excluding the Social Security surplus, could top $350 billion once the off-budget cost of Operation Desert Shield is added in. Fiscal 1992 will hardly be better, with $300 billion in red ink probable.

The deficit outlook is so bad that House Budget Committee Chairman Leon E. Panetta (D-Calif.) and other Democrats are already talking about Son of the Summit—a new budget-cutting attempt in 1991. But that's not likely to happen. The 1990 budget talks were a political nightmare no one wants to relive. And even Washington's most fiscally responsible recognize that raising taxes and cutting spending in midrecession is like throwing a cement life preserver to a drowning economy.

Boskin: Waiting for a sign from the gulf



Instead, Hill Republ and the White House w struggling to ensure fledgling spending cap new form of fiscal disc imposed by 1990's bu deal, remain in force. caps impose pay-as-yo limits on defense, dom and foreign-aid spending Bush has vowed to vet waiver of the caps. Bu Congressional Budget O forecasts that simply taining the current lev government services w push fiscal 1992 spendin billion over the caps.

'MILLIONAIRES' TAX.' The one slim chance for som cal stimulus: Social Sec which doesn't count ag the budget ceilings. Se Daniel P. Moynihan (D-N plans to reintroduce his posal to roll back re hikes in the payroll tax Budget rules require tha cial Security show a balance bet taxes and spending over five years- ily met by promising higher tax broader wage base, or a healthier e my in, say, 1995.

If White House conservatives their way, Bush will seize the payro initiative from Democrats, pairing middle-class tax cut with a drop i rates on capital gains. Democrats w likely respond with the "million tax," a surcharge that they failed t in 1990's budget ba With Bush likely to be p cupied with foreign a between now and his Ja State of the Union sp these ideas may not su in the budget. But if slump deepens, they cou late starters.

Of course, surprises, cially nasty ones, can c renewed power on Was ton policymakers. The of a major bank failure example, are higher in than at any time since That would test the fina system and turn Was ton's spectators back players in a hurry. But t crisis management, not nomic strategy. Don't lo Washington for much o latter in 1991.

By Mike McNamee, Howard Gleckman, Paul nusson, and Douglas brecht, in Washington

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Stock Overview

IT MAY BE TIME TO GET BULLISH ABOUT THE BEAR MARKET

When a recession approaches its midpoint, history shows, savvy investors can make a killi

Unemployment is rising, red ink is gushing, banks are tottering, Wall Street is reeling, and tycoons are going bust. But you know what happens when the going gets tough. The tough go shopping—for stocks.

Stocks? In a recession? It's a gutsy move. But when the economy is in a contraction, stocks—like condos, clothing, and airline tickets—go on sale at mark-down prices. Just look at the Dow Jones industrial average, which skirted the 3000 mark for a few days last summer and now is at 2626. The broader Standard & Poor's 500-stock average is down 10.7%, and the over-the-counter market is a disaster, down 21.3%. The bear market has dealt gut-wrenching blows to those who invested at the peak. But those who go into the market now for the long run are getting a price cut.

Many investors are dazed by something they have never seen before: a down year for the stock market. It's the first one since 1981, the start of the last recession. But if you bought stocks in the dismal days of 1981 and held on, you got in on the ground floor—if not the basement—of a great bull market. There wasn't a lot of incentive to invest in stocks then either. Inflation was in the double digits, interest rates on risk-free Treasury bills topped 14%, and oil prices had just hit $40 a barrel.

TICKING CLOCK. There is a lesson here: Investing when the environment looks bleak can be a bonanza. Recessions last an average of about 11 months, and the current downturn already is four months old, according to most economists. By these counts, you can figure the recession should end in the second half of 1991, and the stock market will start to act on that sometime in the first half. The market, a leading indicator, typically turns up six months ahea the economy.

"Somewhere around now, you ta deep breath and make an investm says Stephen M. Barney of Twen Century Investors Inc., a mutual- and investment-management comp According to Barney, even if you in ed in S&P 500 stocks in the first mon the past three recessions and held stock for one year after the rece ended, your average annualized re was still 13% (table).

Since the recession already is a months old, you probably missed first entry point. That's fine, bec from here on out, the record shows can do even better. Those investin the midpoint of a recession would earned an average 33.8% return ove subsequent 12 months. Even if th cession is close to its end, it's not late for stocks. Those who bought a

of each of the past three ssions were, on average, % richer 12 months later. Ve now have the kind of ng opportunity that you once every 10 years," Elaine M. Garzarelli, a arson Lehman Brothers strategist. Her advice: In- in the largest stocks in stries that led the way of past bear markets (ta- That means companies as Brunswick in leisure , Gannett and Times Mir- in newspaper publishing, te Management in pollu- control, and Centex in ebuilding.

past recessions, leisure-time stocks e more than doubled 12 months after ng their bear-market bottoms, and ebuilders have climbed an average %. Garzarelli is passing on retail ggists this time around. "They only 11%, so I don't think there's going to much of a rebound," she says. "But other stock groups should do two to e times as well as the market."

LL-CAP CACHET. These stocks, in , already are on the move. Since the ober low, the market has climbed . yet homebuilders are up 47.7%. t can be explained by the drop in rest rates. But apparel manufactur- are up 27.2%—more than twice the ket's gain—though consumers' nding is down and their confidence is low not seen in years.

ome pros say small-company or nerging-growth" stocks, a group that underperformed the big-capitaliza- issues since 1983, now offer a great ortunity. Small-company stocks have ten the S&P 500 handily after bear rkets: 66.8% to 57.7%, respectively, in three years after the 1981-82 deba- and 272.4% to 67.8%, respectively, in four years following the 1973-74 sell- . More important, small-caps are so dgeoned now that they trade at near- the same price-to-earnings ratios as ge-cap issues. In the past, they have ded at p-e's as much as twice that of ge-cap companies. And some stocks, rs Eugene C. Sit of Sit Investment sociates, even sell at p-e's that are s than their earnings-growth rates. ese include software companies No- l and BMC Software, insurers Mercury neral and Nac Re, and Chambers De- opment, a landfill operator.

But for all the history, investors don't em to be in any hurry. Their litany of es is familiar: the banks, the thrift ilout, the budget deficit, bankruptcies, d, of course, the Kuwait crisis. Says ic T. Miller, chief investment officer at naldson, Lufkin & Jenrette Securities rp.: "There's no rush to invest."

ARE THE MARKET'S WORST DAYS OVER?

DATA: BRIDGE INFORMATION SYSTEMS INC

True, interest rates have fallen, but strategist Abby J. Cohen of Goldman, Sachs & Co. says stocks are still overpriced. "If 1991's earnings are no worse than 1990's, the market is 10% too high," says Cohen. Overvaluation is not so worrisome in boom times, but it frightens her now. "Investors have no margin for error."

Indeed, if the market manages to maintain its level over the next few weeks, many think it will be tested in January, when fourth-quarter profit reports roll in. Some analysts think companies will take big write-offs to wipe bad assets off the books and set the stage for better profits in 1991.

Among the first to report will be the banks, where the prospects for write-offs and disappointments remain great. That, plus the U. N.'s Jan. 15 deadline for Iraq to pull out of Kuwait, has the potential to roil the market in coming months. Says Chuck Zender, director of client services at Leuthold Group, an investment research firm: "The rise in the market that we have seen since October was merely a bear-market rally, not the start of a new bull market."

TREND WATCHER. Perhaps, but you'll only know about the next bull market after it's already under way. Still, waiting is good enough for big investors, such as Robert M. Gintel, whose Gintel Equity Management handles private accounts and mutual funds. "I prefer to see a trend established before I go in all the way," says Gintel, whose company now has about half of its managed assets in cash.

Pros such as Gintel have to worry about quarter-to-quarter performance reports. But individual investors who report only to themselves have no such constraints. If they invest judiciously in stocks during a bear market, they'll be sitting pretty when the bulls start running. It's the professionals who will be trying to catch up.

By Jeffrey M. Laderman in New York

THE CASE FOR BUYING STOCKS IN A RECESSION

If you invested at the start of a recession and held investment for one year after the recession ended

Holding period	Annualized return, S&P 500
NOV. 30, 1973—MAR. 31, 1976	7.8%
JAN. 30, 1980—JULY 31, 1981	14.6
JULY 31, 1981—NOV. 30, 1983	16.5
AVERAGE OF THREE RECESSIONS	13.0

If you invested at the midpoint of a recession and held for one year

Holding period	Annualized return, S&P 500
JULY 31, 1974—JULY 31, 1975	17.5%
MAR. 31, 1980—MAR. 31, 1981	39.9
MAR. 31, 1982—MAR. 31, 1983	44.1
AVERAGE OF THREE RECESSIONS	33.8

If you invested at the end of the recession and held for one year

Holding period	Annualized return, S&P 500
MAR. 31, 1975—MAR. 31, 1976	28.2%
JULY 31, 1980—JULY 31, 1981	12.9
NOV. 30, 1982—NOV. 30, 1983	25.6
AVERAGE OF THREE RECESSIONS	22.2

DATA: TWENTIETH CENTURY INVESTORS INC.

INVESTING FOR A STOCK MARKET RECOVERY

These industry groups have historically scored big gains in the first 12 months after the stock market has bottomed during a recession

	Average gain
LEISURE TIME	+111.9%
RETAIL DRUG STORES	97.1
POLLUTION CONTROL	94.8
NEWSPAPER PUBLISHING	86.6
HOMEBUILDING	75.5
AIRLINES	65.8
ELECTRONIC INSTRUMENTATION	64.5
TRUCKING	64.1
SEMICONDUCTORS	60.8
BROADCAST MEDIA	58.2
PUBLISHING	57.8
TEXTILE—APPAREL MFG.	51.8
CONTAINERS—PAPER	47.5
BUILDING MATERIALS	38.9

DATA: SHEARSON LEHMAN BROTHERS INC.

Safe Havens

WELL-FORTIFIED INVESTMENTS ARE GETTING HARD TO FIND

Dividend hunters should check out overlooked utility, bank, and preferred stocks

Stock prices, said J. P. Morgan, will fluctuate. But for the long-term investor who likes equities and a steady, relatively safe return, the key is dividends.

Unfortunately, 1991 shapes up to be a very tough year for dividends. Weak earnings and large debt payments are squeezing corporations' cash resources. Their dividend-paying capacity shows one of the narrowest coverages in years, says Arnold Kaufman, editor of Standard & Poor's *Outlook*, an investment newsletter. Small wonder that during the first 11 months of this year, 68% more companies decreased their dividends than during the same period last year. Some 20% fewer companies increased dividends. "Companies are now, and will continue to be in the future, very cautious in their dividend payments," says Kaufman.

'FOREWARNING.' As dividends shrink, traditionally safe stocks are harder to find. Banks, a haven during previous recessions, have fallen off the roster of disaster-proof industries. High-quality, dividend-paying electric utility stocks are one of the last bastions of safety. Yet many of these stocks are no longer bargains. Investors scrambled into them earlier this year when recession fears first surfaced. "Now, you have the risk of having paid too much for the stock," says Roger Newell, chairman of Newell Associates and manager of the Vanguard Equity Income Fund.

Dividend hunters should not despair, though. Potential opportunities include overlooked electric utilities, selective bank stocks, and preferred stocks that offer protection against dividend cuts.

The attraction of preferred stock is simple. The cash-strapped issuer is required to cut the dividend on its common stock before it cuts the preferred payout. "You have a forewarning sign," says Eric Ryback, portfolio manager of the St. Louis-based Lindner Dividend Fund.

Ryback's list of companies with well-insulated preferred issues includes Varity Corp. The Toronto-based company's Massey-Ferguson unit is the world's largest tractor producer, and its Perkins division is the largest manufacturer of diesel engines. Ryback expects flat-to-up earnings this year after Varity reaps the benefits of acquiring Kelsey-Hayes Co., which makes antilock brakes. The yield on the convertible preferred—which is

Check out regional banks with strong reserves—their prices may be artificially depressed by the jittery market

preferred stock the company can co to common stock at some point i future—is about 8.3%.

Another pick is NYCOR Inc., a traded on NASDAQ. NYCOR was spu by the air conditioner giant Fe Corp. in 1987 to buy underperfor manufacturing companies. It sol manufacturing bus and is nothing more a corporate shell about $75 millio cash, says Ryb Based in Basking R N. J., NYCOR rec took an over 8.2% tion in Zenith Electr Corp., which is the domestic television ducer. Ryback bel NYCOR is an acqui vehicle backed by ders that could try quire the rest of Z While waiting to what happens nex gets paid an 11.7% on NYCOR's conve preferred. And Ze Dec. 17 announce that it is teamin with American phone & Telegraph to develop a di transmission syste high-definition tele can only be positiv NYCOR, says Ryba

Adjustable-rate ferred stocks can give you the opp nity to benefit from interest changes. They pay a sliding divide lated to an interest rate benchr such as three-month Treasury bills

BANK SHOTS. Ryback likes three adjustable-rate preferred stocks, C cal Bank, Continental Bank, and Fi a Milwaukee-based bank. All have on the highest and lowest yield the pay. All are trading at or near floor, and returns on the three i range from 10.6% to 17%. Yields like may seem dangerously high. But back insists the stocks are underp "They are win-win situations. If rat lower, people will pay up for this ferred. If interest rates go up, the

ers will pay you more," says Ryback. The banks can cut their dividends on these adjustable-rate preferred stocks, but since that could affect their credit rating, they would only do it as a last resort, he believes.

If you're a dividend lover, you've no doubt been attracted by the almost record-high yields on common stocks issued by major money-center banks. One example is Manufacturers Hanover Corp., with a 15.7% yield. Remember, it's risky: Many money-center banks are under regulatory pressure to boost reserves for bad loans. On Dec. 18, Citibank announced that it would cut its dividend from $1.78 to $1, which reduced the yield from 13% to 7%. Other banks, such as Chase Manhattan, have taken the same step to conserve scarce cash resources.

Better alternatives are banks that offer lower yields but have sturdier balance sheets. In many cases, their share prices are artificially depressed because of the market's overall negative view on bank issues. Kenneth Puglisi, a senior vice-president at Keefe, Bruyette & Woods Inc., recommends NBD Bancorp, First Wachovia, and Norwest. Their dividends range from 4.1% to 4.7%. All are solid regional players with healthy reserves. "The best bet is to look for banks with good histories of dividend payments and a strong capital position," Puglisi says.

POWER PLAYS. Safest of all are high-quality electric utilities. Like bank stocks, the safest utility stocks pay the lowest yields. Examples are Wisconsin Energy, Central & South West, and Duke Power, which offer yields from 5.1% to 6.1%. Ray Moore, utility analyst at Oppenheimer & Co., feels these utilities will be strong performers next year. He expects them to raise their dividends, which will help cause their stocks to appreciate.

Other analysts, though, feel the stocks of some high-quality utilities are already richly priced. These issues are now trading at close to the bottom of their historic dividend yield range. "The story is out on these," says Vanguard Equity Income Fund's Newell. His tactic is to buy higher-yielding but quite safe utilities in the 6½%-to-8% range that are not fully priced. One example is Consolidated Edison Co. of New York. Its dividend, currently 7.6%, is more than twice the yield of the average industrial stock. Newell also likes two West Coast utilities, SCEcorp and PacifiCorp. "We look for good-quality companies that are a little out of favor," says Newell.

With that motto, investors could pick some bargains during this recession and still sleep nights. Just remember J. P. Morgan's other line: "I never gamble."

By Leah Nathans Spiro in New York

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Stocks for Speculation

JUST BECAUSE SMALL-CAPS ARE DOWN DOESN'T MEAN THEY'RE OUT

From their ranks could come some of the year's biggest winners

Secondary stocks have been on the defensive for the eighth straight year. But 1991 isn't the year to give up on the group. So say some seasoned pros who contend that many of the big winners of the new year will come from the small-capitalization stocks.

"It's definitely the right time to be in the secondary stocks," says John H. Laporte, one of the investment pros who knows the small-cap stocks best. He is president and chief investment officer of the $900 million T. Rowe Price New Horizons Fund, considered to be the bellwether fund for small-cap stocks. Reflecting the disarray in secondary stocks, New Horizons declined 14% in the first 11 months of the year, although the fund was ahead 11% for all of November and surged 26% in 1989. Some of its picks in the past have ended up as giant winners, including Wal-Mart, Toys 'R' Us, Lin Broadcasting, and Liz Claiborne.

Although Laporte feels that the bear market hasn't yet fully run its course, he points out that historically, the small-cap stocks outscore the market just before the end of a recession. Among Laporte's top stock picks are companies that, although yet undiscovered, are leaders in niche markets. His choices include Office Depot Inc., operator of a large chain of warehouse stores that sell discount office products mainly to small businesses; Paychex Inc., which provides payroll processing and personnel-related services to more than 120,000 small businesses; Adobe Systems Inc., a maker of application software for printing text and graphics, principally for the growing personal-computer market; and Handex Environmental Recovery Co., which specializes in cleaning up leaking underground storage tanks, mainly those used in the oil indu

Picks range from a bank in Texas to a company that makes sand filters for tanks and helicopters

Stephen Leeb, editor of the Alexar (Va.) market letter *Personal Fina* also believes that the present cir stances bode well for small-cap st Leeb notes that interest rates fallen sharply over the past few mo and that this is a clear sign the small-cap stocks are about to r He says that in recent years Stan & Poor's index on low-priced s advanced 11% in a mere matter of months each time interest rates sta trending down.

MONEY TALKS. But there's another fa that's making Leeb bullish on s stocks: "This time around, you to find high-quality companies w stocks are deeply depressed." Altho many investors might consider Le picks as speculative, the editor em sizes that most of the companies his new buy list have strong bal sheets with debt no higher than of capitalization, lots of excess c and undervalued assets. The stock the list are down way below their week highs.

Leeb likes Sterling Bancorp, which he ays "is one of the most liquid banks id a very conservatively run institu-on"; Diasonics Inc., a diagnostic imag-g-equipment manufacturer whose rnings Leeb believes will grow 20% in 91 from 1990's estimated 25¢ a share id that currently trades at 2½ a are; and Thor Industries Inc., a ma- maker of minibuses that has been tively repurchasing its own shares. is other favorites: high-tech electron- company Harris Corp., whose earn-gs are expected to get back to the % pace, and Oracle Systems Corp., a ge manufacturer of data-base man-ement systems whose earnings ould also get back on a fast track er the next 12 months.

LITARY MUSCLE. Banks are still high the hate list of most Street ana-sts. But like Leeb, Warren K. eene, president of American Inves-rs Growth Fund in Greenwich, nn., is looking hard at the banks. has been buying First City Ban-p of Texas. Once trading as high as a share in early 1990, the stock has l to 3. Among the problems: The nk posted an unexpected loss of 01.9 million—or $5.87 a share—in third quarter after posting a $77 lion charge and setting aside a $67 lion special loan-loss reserve and ier charges of $25 million. Still, eene believes the bank holding com-y is a bargain. "It's a cheap way to ticipate in the revival of the Texas nomy," he says, noting that busi-s in the oil patch, including Tex-—which was in a virtual depression mid-1985—has become more stable. bank's financial survival, he in-s, isn't in question, as capital and erves are at "acceptable levels." sed on the bank's long-term pros-ts and its attractive Texas fran-se, says Greene, the stock is gross-ndervalued and should move much her before long.

ome political analysts are saying t U. S. forces will be massed in the ert for a long time. If you agree, e a look at Pall Corp., a leader in cialty high-performance filters for lth care and aerospace-fluid power, Trimble Navigation Ltd., which kes electronic instruments that de-mine precise geographic locations. all, of Long Island, N. Y., already enefiting from the U. S. buildup in di Arabia because its air filters are d in combat helicopters and for pro-ion against nuclear, biological, and mical warfare. Pall expects to gener- $17 million in sales in 1991, says gan Stanley & Co. analyst Mark R. ley. The company's military business, says, accounts for about 10% of sales. has booked air-filter orders for heli-copters, and it expects orders for filters that protect the gearboxes and transmissions of such land-based weapons as tanks and personnel carriers. Filters fine enough to prevent turbine engines from ingesting sand and salt water could also protect helicopter and tank crews and other forces in enclosed spaces during biological or chemical warfare. Pall projects an 18% sales gain, to $665 million, in 1991, which could mean earnings of $2 to $2.05 a share.

Trimble, another Desert Shield beneficiary, supplies the U. S. government with handheld telephone-size navigational receivers. These 4-pound Trimpack receivers, which cost $9,000 each, rely on signals sent from Navistar Global Position System satellites—the $10 billion satellite network recently launched by the U. S. government. The Navistar GPS provides three-dimensional position and velocity information. Trimpack is being used by military command posts to coordinate and track the movement of soldiers and equipment in the field.

So far, analysts figure that Trimble will post earnings of 8¢ a share in 1990, twice that of last year's 4¢. Selling at 7¾ a share, or nearly 100 times earnings, the stock is certainly not cheap. But 1991 could be a big year. If tensions continue or war erupts, earnings could soar well above the 17¢ a share analysts are projecting.

TAKEOVER TICKLER. Richard E. Teller, an investment strategist at Jesup, Josephthal & Co. in Boston, is betting on a stock that depends on a more tranquil environment. M/A/R/C is a tiny company that provides custom market research for such consumer-products giants as RJR Nabisco, Warner-Lambert, Coors, Coca-Cola, and American Telephone & Telegraph.

The company used to trade at a lofty multiple, with the stock selling at 15 in 1986, when business was growing nicely. But in recent years, earnings flattened out at around 90¢ a share and the stock dived, to 8. Teller sees M/A/R/C getting back into the 20% growth rate again, regardless of the economic slump. Its business in data-base marketing is exploding, says Teller, and he estimates that the company will earn $1.02 a share in 1990, rising to $1.30 or more in 1991. If Teller is right on earnings, the stock looks cheap at its current price of 8¾ a share.

Teller says the kicker is the possibility of a takeover. Book value stands at $11.10 a share, and the company's debt is negligible. In the past few years, notes Teller, there have been a number of acquisitions in the data-base field, such as American Express Co.'s purchase of Epsilon Data Management Inc., whose operations are similar to M/A/R/C's. The purchase price of Epsilon implies a value of $20 a share for M/A/R/C's stock, estimates Teller. The company, he notes, has been steadily buying back its shares in the past few years.

With the market well below its highs for the year and with the secondary stocks hurting the most, the batch of speculative picks for 1991 offers the daring investor an unusual opportunity: to take a roll of the dice without much downside risk.

By Gene G. Marcial in New York

SPECULATIVE STOCKS FOR THE DARING

Company Business	1989-90 high	Price*
ADOBE SYSTEMS Computer software	50¾	27½
ADVANTAGE LIFE PRODUCTS Smoking alternatives	4⅝	2⅜
DIASONICS Diagnostic imaging	4⅛	2½
FIRST CITY BANCORP OF TEXAS Commercial banking	37	3
GUEST SUPPLY Personal products for hotels	8¼	3⅜
HANDEX ENVIRONMENTAL Storage tank cleanup	23½	23
HARRIS CORP. High-tech electronics	36⅛	19⅝
M/A/R/C Consumer product research	13	8¾
MICROTEL FRANCHISE Low-price hotels	7¾	3½
ORACLE SYSTEMS Software products	28⅜	7½
OFFICE DEPOT Warehouse stores	21½	16⅝
PALL Filters, fluid controls	37⅜	34¾
PAYCO AMERICAN Debt-collection agency	15½	12¼
PAYCHEX Payroll services	20½	18¾
RENTRAK Videocassette distribution	6½	4¾
SPELLING ENTERTAINMENT TV films, programming	12⅞	3¾
STERLING BANCORP Commercial banking	10	7⅞
TERADYNE Semiconductor test equipment	11⅛	6⅞
THOR INDUSTRIES Motor homes	10⅝	9¾
TRIMBLE NAVIGATION Satellite navigation products	11¾	7¾
WAHLCO ENV. Flue-gas conditioning systems	16⅝	8⅝
WATSCO Climate-control equipment	11	8⅝

*Dec. 18 DATA: BW SURVEY OF MONEY MANAGERS

EUROPE: STILL DAZED BUT STARTING TO COME AROUND

No one sees a return to 1989's euphoria, but even conservative investors are looking at stoc

Only a year ago, Europe's bourses were bubbling over with euphoria. The fall of the Berlin Wall suddenly seemed to open new vistas to a Europe already gripped by 1992 fever. Then, reality set in. As 1990 wore on, tight money, an economic slowdown, falling profits, and the Mideast crisis ganged up on the markets and sent them back into the shadows.

Still, everything isn't lost. Even with Europe in recession, a moderate rate of expansion in Germany and the rest of the Continent should keep Europe growing by 2% overall this year. Despite slower growth, the 12 European Community members remain as committed as ever to scrapping internal trade barriers by 1992.

That's why, after 1990's bloodbath pushed stock prices down 10% in Britain, 15% in Germany, and nearly 20% in France, Italy, and the Netherlands, Europe is beginning to look attractive again to investment pros. Indeed, W Temperli, chief investment strategi Zurich's Bank Vontobel & Co., bel the Frankfurt, Paris, and London kets will gain 12% to 15% in 1991. potential for further declines is very ited," adds another Zurich-based bull, Crédit Suisse European equ strategist Peter Glaser.

Still, many hard-hit money mana are sticking to bonds right now— good reason. Bond markets are alr

tarting to rally on expectations that, as Europe cools, interest rates will come down across a broad front. So far, short-term rates have given little hint of this. They could even edge up a bit in January, if Germany's Bundesbank acts to counter the huge budget deficits Bonn is running up to finance reunification. But inflation still seems far away, despite last summer's oil shock.

For one thing, companies are squeezing profit margins instead of passing on their increased energy costs. Analysts predict that the German and French inflation rate will remain subdued, at 3% to 3.5%, while Britain's rate will fall dramatically, from 10% in 1990 to 6% next year. Reflecting this—and taking a cue from the U. S.—long-term interest rates in Germany and France have already declined by half a percentage point in the past month. As European economies cool further, rates may drop even more. "The foundations are being built for a durable rally in bonds," says George A. Magnus, chief international economist at London's G. Warburg Securities.

TEMPTING YIELDS. Instead of buying bonds denominated, say, in marks or francs, a number of money managers recommend high-yielding debt denominated in European Currency Units (ECUs), the EC's official unit of account. With the EC planning to move to a single currency and central bank in the coming decade, such bonds are becoming increasingly fashionable. Managers are particularly high on long-term ECU bonds issued by the European Rail Board, yielding 9.84%, and those of the French National Railway system (SNCF), yielding about 10%.

Despite such tempting yields, even conservative money managers are beginning to sniff at stocks again. For example, Georg W. Ellerberg, head of research at Bank Julius Baer in Zurich, still has 50% of the bank's portfolio in bonds and only 25% in stocks, with the remainder in cash or other nonequity investments. But he plans to start buying stocks aggressively at the first sign of an interest-rate-induced rally.

For those who can't wait, Britain, where stocks sell at an average price-earnings ratio of 9.6, ranks among the cheapest markets in the industrial world. George Hodgson, equities strategist at Warburg, favors three retailers that are keeping a tight hold on inventories: Boots, Kingfisher and Marks & Spencer. But even amid the rush to the East, many find it hard to be enthusiastic about German equities right now. Foreign investors have been especially spooked by 9% interest rates and the prospect of stagnant profits for exporters, battered by the tumbling dollar. Indeed, foreigners have dumped $7 billion of the $10 billion worth of German stocks they bought following the opening of the Berlin Wall in November, 1989, estimates Guy Rigden, director of investment strategy for UBS Phillips & Drew Securities Ltd.

But Udo Behrenwaldt, managing director of DWS, the mutual-fund arm of Deutsche Bank, thinks foreigners have been too hasty. Pumped up by the East German reconstruction effort, German domestic demand is still booming. With the likelihood of interest-rate cuts later in 1991 prolonging the expansion, Behrenwaldt likes a host of companies capitalizing on the local action. Among them are DLW, a furniture and floor-covering maker, and Südzucker, a sugar refiner. He also favors retailers, including Douglas Holding and Karstadt, which operates a thriving mail-order subsidiary in the former East Germany.

Others recommend construction-industry issues including Philipp Holzmann, Hochtief, and Heidelberger Zement. But Richard L. Holbrook, director of international research at Bailard, Biehl & Kaiser in San Mateo, Calif., favors overlooked European companies that do much of their business in Germany. One example: Interdiscount Service, a Swiss consumer-electronics retailer.

Perhaps you're more conservative. A number of analysts are high on Europe's big foodmakers, traditional safe havens during rough economic times. Despite U. S. and British recessions, such global groups as Switzerland's Nestlé, British-Dutch Unilever, and France's BSN are doing well. But food issues aren't the conservatives' only picks. Many U. S. and European analysts like Royal Dutch Petroleum, the Dutch part of the worldwide Shell group, whose earnings are expected to gain 10% in 1991.

With Europe stepping up environmental cleanup efforts, Bank Vontobel's Temperli recommends France's Lyonnaise des Eaux, a water and environmental services group. The graying of Europe, he says, augurs well for such drugmakers as Switzerland's Roche Holding and Sandoz, and Britain's Glaxo. And electrical-equipment makers are gaining new adherents. Sellerberg, for example, likes Germany's Siemens, Switzerland's BBC Brown Boveri (half-owner of the ABB Asea Brown Boveri group), and France's Compagnie Générale d'Electricité.

THE DOLLAR'S EFFECT. One hitch for American investors might be a rising dollar. Alastair Ross Goobey, chief investment strategist with London's James Capel & Co., believes the greenback, now worth 1.48 marks, could gain 12%, to 1.65 marks, by the end of 1991 as interest rates ease overseas. Such an increase would depress the value of overseas assets. But a stronger dollar's beneficial effect on some European exporters' earnings could outweigh investors' possible currency losses. Goobey especially likes British chemical maker ICI and British Aerospace. Others, arguing that Britain's 13% interest rates could fall before long, favor such yield-sensitive issues as British Telecom or Lloyds Abbey, the insurer. Continental issues benefiting from the lower rates include Deutsche Bank, which boasts solid earnings and an aggressive expansion in Europe.

But lower rates are not about to touch off another stampede to stocks like the one Europe witnessed in 1989. With the global economy slowing, Europhoria will stay in check this year. But there is still a lot of life left in the European markets—and where there's life, there are investment opportunities.

By Blanca Riemer in Paris

THE STOCKS EUROPE'S PROS ARE BUYING

		Price*	Percent change since Jan. 1	
			Local currency	Dollars
FOR SAFETY				
DOUGLAS HOLDING Germany	Retailing	$514.00	-1.2%	12.7%
BRITISH PETROLEUM Britain	Oil	6.45	-1.5	19.0
ALLIANZ HOLDING Germany	Insurance	1,468.00	-2.1	16.5
UNILEVER Netherlands	Food	88.50	-7.9	5.2
ZURICH INSURANCE Switzerland	Insurance	3,169.00	-23.0	6.5
FOR GROWTH				
COMPAGNIE GENERALE D'ELECTRICITE France	Electrical equipment	$109.11	2.4%	17.2%
BRITISH TELECOM Britain	Communications	5.65	-5.5	14.1
BBC BROWN BOVERI Switzerland	Engineering	3,200.00	-18.8	-1.6
DEUTSCHE BANK Germany	Banking	423.00	-22.8	-11.9
SIEMENS Germany	Electrical equipment	356.00	-27.0	-16.7

*Dec. 18

DATA BANK VONTOBEL & CO

ASIA INVESTORS TAKE A WALK ON THE WILD SIDE

And if they're lucky, they may spot jewels in construction, health care, and other industries

In Tokyo, 1990 will go down as the year everyone would just as soon forget. Blindsided by soaring interest rates and oil-shocked by Iraq's takeover of Kuwait, investors ran for cover. As they ran, the Nikkei stock average skidded an incredible 14,500 points—or 37%—to its worst annual showing ever. But Japan's stockbrokers, ever the optimists, are still forcing a smile. "We can't possibly say the stock market is going to go down," declares Nomura Securities President Yoshihisa Tabuchi. "If we did, it would—just because we're Nomura."

Tokyo's brokers may still be smiling, but no one is paying much attention. Big and small investors have fled to the safety of certificates of deposit and Japanese government bonds. And the legions of foreigners who once flocked to the Tokyo Stock Exchange have simply gone home. In the first 11 months of 1990, foreigners dumped $13.3 billion worth of Japanese shares. Among the biggest victims: Nomura, the world's largest stockbroker. Its market value sank from $53 billion to $27 billion in 1990 as its shares plummeted 49%.

SHELL-SHOCKED. The coming year is shaping up to be as bleak as the one just past. Central bank Governor Yasushi Mieno, who many think sparked Tokyo's year-long collapse with a sudden interest-rate hike on Christmas Day, 1989, shows no sign of softening his stand as long as consumer prices continue rising at a 3.5% annual rate.

As a result, Japan's $3 trillion economy is slowing from 1990's nearly 6% growth rate. With corporate profits already down for the first time since 1986, some say Japan's gross national product will only grow 3% in 1991.

But Japan has come out of previous slowdowns and recessions with amazing speed and vigor. To hear the brokers tell it, this time may be no different. Even as the market languishes, brokers are rushing out a host of mutual funds investing in small-size growth companies that could turn around quickly when the business cycle picks up. They are also targeting Japan's No. 2 stock exchange, in Osaka, where many smaller companies trade.

Still, some investors are looking instead to Hong Kong. Badly damaged in the 1987 crash, Hong Kong finally rebounded in 1990 with an 8% advance. But the market sports a price-earnings ratio of only 10, despite predictions of 15% corporate earnings growth. Some analysts are starting to focus on retailers Dairy Farm and Lane Crawford. Others like Hong Kong Electric, the colony's power producer. But many insist that the best bets may still be closer to home in shell-shocked Tokyo.

The pros advise steering clear of banking and property issues until the shakeout from the tling Japan's real estate market passes. But government spending may make construction stocks "really shine," says Yasuo Oyama, an analyst at James Capel (Overseas) Ltd. Japan plans to spend $3.3 trillion over the next 10 years on roads, bridges, and airports. If the economy suddenly slows, Japanese officials may pump up public-works spending even more.

Among the pros' picks is Kajima, a big contractor that has expanded into Hong Kong and Britain. But Oyama notes that the aging of Japan also should help some construction issues. With one in four Japanese expected to be over 65 by the year 2000, the country is likely to pour money into new hospitals. A prime beneficiary could be Toda Construction, which so far has provided 5% of the new hospital-bed space in Japan.

STANDBYS. Tokyo's blue chips may not have offered much value when the Nikkei was closing in to 40,000 and price-earning ratios were a stratospheric 60. Now that p-e's are down to a less heady 44, some say it's time to sift through the rubble for old favorites. Convenience-store operator Ito-Yokado, for instance, is three times as profitable as its rivals. It is about to wrap up a $430 million takeover of Southland Corp., which operates 7-Eleven stores across the U. S. And many favor To

Tokyo brokers: Targeting small companies

TOP PICKS FOR RIDING OUT TOKYO'S TOUGH TIMES

		Price	Percent change since Jan. 1*	
			Yen	Dollars
CONSERVATIVE				
ITO-YOKADO	Supermarkets	$27.83	-20.2%	-13.9%
HITACHI	Electronics	8.40	-26.3	-20.5
TODA CONSTRUCTION	Construction	12.60	-27.0	-21.2
KAJIMA	Construction	12.08	-27.1	-21.4
TOYOTA MOTOR	Autos	13.05	-31.5	-26.1
AGGRESSIVE				
NISSEI BUILD KOGYO	Housing	$26.56	37.7%	50.4%
TOHOKU ELECTRICAL CONSTRUCTION	Engineering	25.13	0.0	7.9
NIPPON COMPUTER SYSTEM	Software	36.01	-25.6	-19.7
OSAKA BUILDING	Real estate	9.60	-40.5	-35.8
NOMURA SECURITIES	Stockbroker	13.27	-48.5	-44.5

*Through Dec. 17

DATA: BW SURVEY OF ANALYSTS

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In fact, at any speed you choose, you will find it quiet, stable, predictable.

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Motor. Charles R. Elliott, general manager of Goldman Sachs (Japan) Corp., estimates the auto maker's earnings will rise 15% this year. Yet its stock now trades at an 11 p-e. Some even think Nomura will head for a comeback when interest rates finally ease.

Some lesser lights may also survive Tokyo's travails. Soaring electric consumption has forced utilities to boost spending on power lines, causing sales to surge at Tohoku Electrical Construction. "This is a gold coin just waiting to be picked up," says Simon Grove, deputy general manager at WestLB Securities Pacific Ltd. Another relative unknown is Nippon Computer System Co., a software producer. Despite a 35% jump in profits for the six months ended Sept. 30, its shares are down 50%.

As 1991 unfolds, low prices probably will attract foreign investors back to Asia. But in Tokyo, any recovery may be slow and choppy. Banks, insurers, and corporations still want to unload h stock holdings they bought at hi prices during the boom years. And spite a December rally, many predi new fall before the Nikkei can sta recover. Some think the Nikkei ma as low as 17,000, a 30% drop from rent levels. After that, says West Grove, "there will be clear blue ahead." Until then, many investors want to stay on the sidelines.

By Ted Holden in T

WHERE IN THE WORLD TO BUY ON THE CHEAP

Investors in closed-end funds aimed at foreign stocks have been learning about international risk the hard way in recent months. After turning in dazzling performances in 1989, many of these funds went into full reverse in 1990. Consider the Spain Fund, whose 199% price gain made it the hottest performer on the New York Stock Exchange in 1989. Then came 1990. The Spanish economy may still be hot, but the Spain Fund certainly isn't. At $11.63, its shares have gone back to where they were when the frenzy began.

Chalk the bubble up to 1989's mad rush into Europe. Even before the Berlin Wall fell, euphoric investors were bidding up European funds so high that some funds were selling for double the value of their portfolios. Funds of other countries soared, too. By January, 1990, the average premium of the 20 country funds tracked by Miami analyst and money manager Thomas J. Herzfeld had hit a record 33.4%. The inevitable collapse started shortly afterward, but Saddam Hussein's invasion of Kuwait delivered the coup de grace. Japanese investors, who had been some of the most enthusiastic buyers of U. S.-listed country funds, fled en masse. By the end of 1990, the premium had turned into an 8% discount.

To Herzfeld and other country-fund mavens, that discount spells opportunity. Many reputable closed-end funds have long traded at discounts, reflecting everything from management fees to managers' long-term investment records. But country funds still offer many investors the only easy entrée to emerging and exotic markets, from Mexico to Malaysia.

Herzfeld trades his portfolio actively. But unless you're prepared to buy, sell, and switch—and pay brokerage commissions—every time your fund moves up a tick, the country funds may be best held for the long term. "The group still offers enormous potential," says Herzfeld, "because prospects around the world—Iraq notwithstanding—are bright."

A BAD YEAR FOR COUNTRY FUNDS

	Price*	Net asset value*	Total return** Percent
FEW WINNERS...			
MEXICO	$13.75	$16.44	24.1%
CHILE	16.13	18.42	3.2
...AND MANY LOSERS			
GERMANY	12.00	11.87	-37.7
R.O.C. TAIWAN	7.63	8.82	-41.9
PORTUGAL	9.25	11.39	-45.6
FIRST PHILIPPINE	7.13	9.70	-48.2
AUSTRIA	10.38	13.55	-49.4
THAI	16.00	15.63	-50.6
KOREA	13.75	11.82	-55.8
SPAIN	11.63	12.65	-63.4

*Per share, Dec. 14 **Price change, dividends, and capital gains distributions since Dec. 31, 1989 DATA: SMITH BARNEY, HARRIS UPHAM & CO

Herzfeld likes deeply discounted funds that invest in Southeast Asia and Latin America, including the First Philippine Fund (27% discount), Singapore Fund (13%), and Latin America Investment Fund (16%). Because many developing countries are big oil importers, the gulf oil shock has hit these funds especially hard. A resolution of the crisis that leads to a sharp fall in oil prices might put these economies—and the funds—back on the fast track.

Although Mexican President Carlos Salinas de Gortari is counting on p ing his country's economy out of doldrums by forging a free-trade cord with the U. S., analysts think Mexico Fund, up 24% in the past ye may be overpriced. Two newcomer the Emerging Mexico Fund and Mexico Equity & Income Fund—m offer better value for investing in of the developing world's leading exporters.

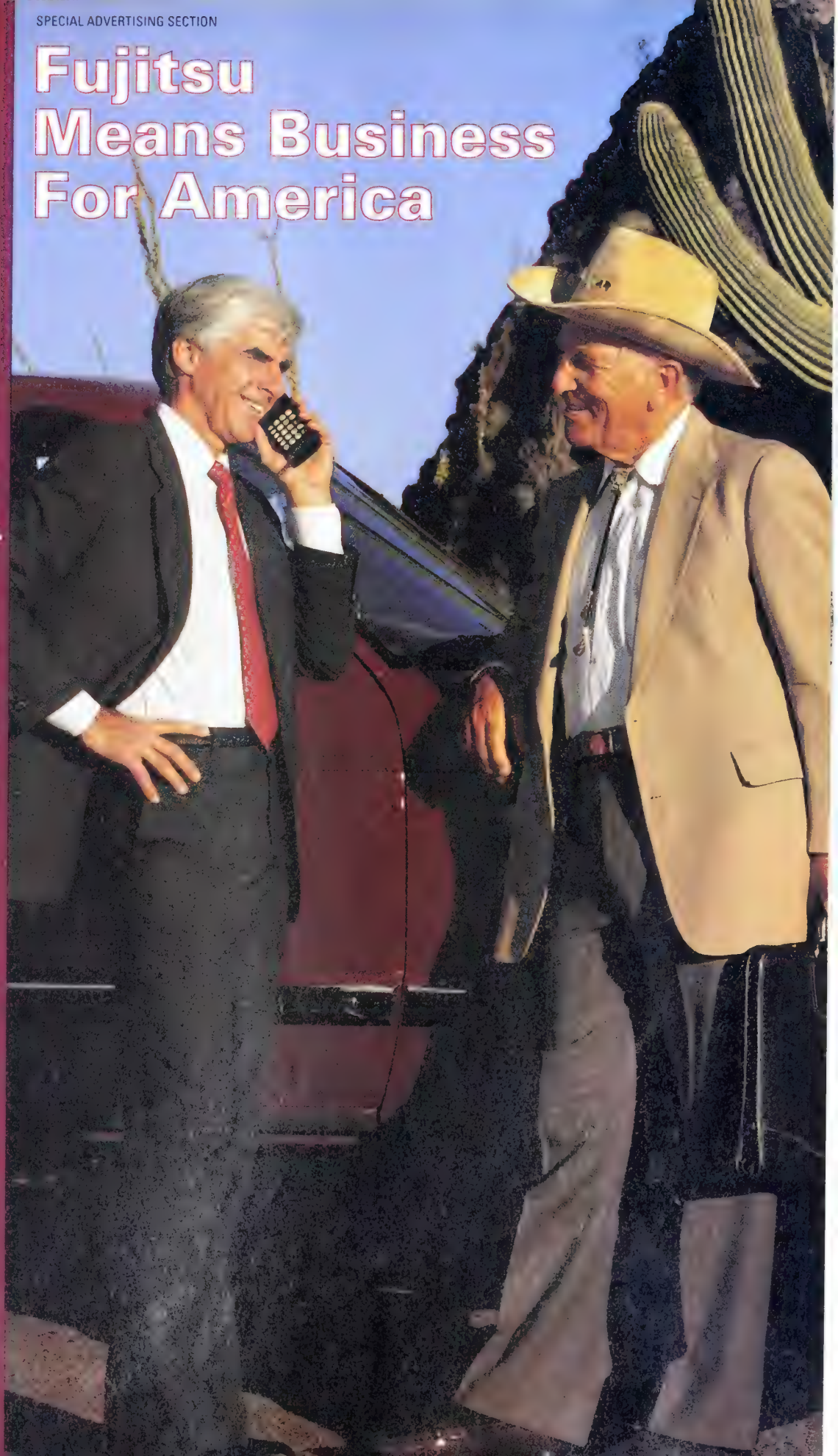
You can play the same game in G many sniffing out the best de among several funds with similar po folios. Michael Porter, an analyst Smith Barney, Harris Upham Co., favors the Emerging Ger ny Fund, run by Dresdner Ba over Deutsche Bank's Germa Fund. At $8.50, the Emerging G many Fund sells for 17% under net asset value, while the bett known Germany Fund, at $ trades at a 1% premium.

HEDGING BETS. A recovery by dollar against the strong m could cut into the value of German funds. That's one rea you might want to protect yo self by buying funds that inves several countries. "Their divers cation makes them less likely fall off the charts," says Willi G. McBride of Lipper Analyti Securities Corp. In Southe Asia, he recommends the Scud New Asia Fund, which places 6 of its assets in developing m kets—such as Thailand, Malays and Indonesia—and puts the ot 35% in small Japanese stocks.

The threat of war in the Pers Gulf isn't the only reason to view co try funds with caution. Spurred by high prices, some 20 foreign st funds, with assets totaling $2.6 billi made their debuts on U. S. stock changes last year alone. Scores m sprang up overseas. The resulting g of country funds may hamper a price recovery. On the other hand, venturous investors will find more tions than ever.

By Stanley Reed in New Y

Fujitsu Means Business For America



Fujitsu is a $16 billion global company with advanced technology in semiconductors, electronic components, telecommunications, computers, software and peripherals. In the United States and Canada, the Fujitsu group has some 6,000 employees, more than half of whom are in R&D, engineering and manufacturing.

FUJITSU MEANS OPPORTUNITY FOR AMERICAN BUSINESS

In business for the long haul, Fujitsu looks beyond its own bottom line towards its client base. It must look at how its customers are doing and respond to their needs. Fujitsu helps its customers grow. This attitude has been the basis of Fujitsu's success in the United States and Canada for almost twenty years.

"Fujitsu changed the way it does business to work with us."

Mark Baran
Page Composition

Supplying The Latest Technology MCI Telecommunications Corp., the second largest U.S. long-distance telecommunications company, uses leading-edge technology to provide less expensive, more efficient service, driving its suppliers to develop that technology. For more than a decade, MCI has been a Fujitsu America customer. "Fujitsu is at the forefront of telecommunications technology worldwide," says MCI Senior Vice President Frank Kozel.

Opening A Market Niche Page Composition is a small Texas firm that saw the need for a continuous form laser printer specifically designed for bar codes. Working with Fujitsu America, Page developed data standards and mechanical specifications, while Fujitsu handled the engineering.

Since then Fujitsu has continued to work with Page Composition. "They have assisted with marketing support," says President Mark Baran, "and they provide our service support. How can you provide maintenance when selling to a niche market? We're a small company," Baran continues. "Fujitsu changed the way it does business to work with us. They play a key role in our ability to get the machine out there."

Improving Efficiency Johns Hopkins Hospital turned to ISDN (Integrated Services Digital Network) as a way to create a cost-efficient, wide-area network for voice and data. "ISDN allows us to bring more users to the data network," explains Ed Thyberg, manager, Network Communications Systems.

Johns Hopkins chose Fujitsu Network Switching as an ISDN supplier. "What Fujitsu and ISDN do," Thyberg adds, "is save us money. In an industry where profit is an exception, we are looking for ways to keep costs down."

FUJITSU MEANS TECHNOLOGY FOR AMERICA

Heart and soul, Fujitsu is a technology company. Pushing constantly against the frontiers of technology, it has gained a wealth of expertise. "The challenge," suggests Dr. David W. Sear, vice president for Standard Product Operations at Fujitsu Microelectronics' Integrated Circuits Division, "is to dig into the gold mine of Fujitsu technology."

Using Technology To Create Technology Tiara Computer Systems, Inc., a manufacturer and designer of PC networking building block products, designed the first network adapter card based on Fujitsu's EtherStar™ controller chips. A small company, Tiara at first hesitated: would a supplier as large as Fujitsu respond quickly to Tiara's needs?

"As it turned out," says CEO Andrei Glasberg, "Fujitsu has been both flexible and responsive." Working closely with Fujitsu Microelectronics, Tiara developed a second-generation chip, putting its network adapter products firmly ahead in technology and performance, according to independent tests. Today, EtherStar products contribute the largest share of Tiara's revenues.

VER: Fujitsu's POCKET MANDER™ cellular tele- sets new standards for ess and portability.

Johns Hopkins Hospital chose Fujitsu ISDN terminals as part of a far-reaching communications modernization program.

Pepsi-Cola

Three years ago, recognizing that route-distribution technology would have a major positive impact on its business, Pepsi-Cola began working with different vendors to test handheld computers. Last year Pepsi-Cola chose Fujitsu Systems of America.

Pepsi-Cola's sister company, Frito-Lay, was already using Fujitsu's handheld computers successfully. "Given the synergies with Frito-Lay, as well as the expertise and depth of experience of its personnel, we felt Fujitsu had the advantage," says John Budesa, director of Pepsi-Cola's Marketing Equipment Division.

"We were Fujitsu's first exposure to the soft drink industry," Budesa notes. "They came up to speed very quickly. They've been extremely responsive to our needs and have met our expectations."

Installation of handheld systems began in April 1990. "Our company is decentralized," Budesa explains. "The business is run at the local level. We needed to have a common method of gathering sales information."

Fujitsu's handheld computers give sales personnel immediate access to exact pricing and market information, thereby reducing the chance of errors in pricing and billing.

Salespeople save time in financial settlement of their routes. As a result of invoicing customers during the day, the handheld computer has captured key customer information as well as tracking what deliveries have to be made the following day.

"Fujitsu's handheld computers have already proven to be a time saver for Pepsi-Cola sales personnel," Budesa says. "That savings enables Pepsi-Cola to give existing customers better service, increasing customer satisfaction. It also means that our salespeople have more time to sell to new customers."

Reducing Costs "MCI's principle goal in working with Fujitsu," says MCI's Frank Kozel, "is to apply leading-edge technologies in addressing our business needs now and in the future."

A good example, Kozel suggests, is the 1550 nanometer laser: "Fujitsu had commented that their laser technology was developing so fast that the spacing between repeaters on a transmission line we were building could be doubled. That meant a savings of $7.5 million for this project alone."

Setting The Pace Fujitsu, in fact, has long been a leader in telecommunications transmission equipment. Two years ago it introduced the first SONET (Synchronous Optical NETwork) product, the FLM (Fiber Loop Multiplexer) 50/150. Earlier this year Fujitsu brought out a second SONET product, the FLM 600.

SONET is a new set of internationally agreed performance standards for fiber optic communications. Fujitsu's FLM products enable telephone companies to bridge the gap between existing standards and SONET; they can buy and use equipment now that will meet future requirements.

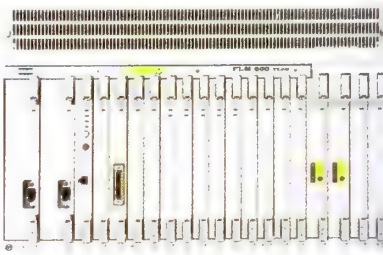
"We work with Fujitsu to apply their technologies in addressing our business needs now and in the future."

Frank J. Kozel
MCI Telecommunications Corp

Fujitsu's fiber optic transmission systems help make MCI's long distance services more competitive.

Testing The Future In the key area of central office switching, Fujitsu is working with U.S. telephone operating companies to fine tune its internationally successful FETEX™-150 digital switch to present and future requirements of the U.S. public networks.The FETEX-150's excellent broadband switching capabilities are an important advance. Broadband switching will enable the public telephone network to handle image, video and data, as well as voice communications at high speed.

BellSouth and Nynex are currently working with Fujitsu on trials linking hospitals, universities, publishers, and computing centers to study broadband services and applications.



The FLM 600 is a second generation SONET system designed specifically for the U.S. market.

Introducing New Products Fujitsu is continually introducing new technology, new products, and new applications. In facsimiles it has helped to accelerate the shift from thermal to plain-paper technology and has developed a mobile fax machine that can work with cellular telephones. It is moving ahead on the development of high speed Group IV fax machines that will allow even faster communications.

Fujitsu recently introduced a new generation of smaller, lighter, pocket-sized cellular phones headed by the tiny but powerful POCKET COMMANDER™, weighing-in at slightly more than 10 ounces. In retail point-of-sale (POS) systems, Fujitsu's Atrium9000™ system was among the first to use Microsoft's MS® OS/2

operating system, thereby allowing simultaneous multi-tasking. More than 3,000 Atrium9000 systems have been installed in the last year.

Another Fujitsu innovation was to design its F9600™ as an ISDN platform PBX (private branch exchange). This permits the easy implementation of new technologies. The F9600 can accommodate from 100 to 9,600 lines at a single location. "Today's F9600 customer is purchasing technological leadership that will be responsive to his needs into the next century," observes Fujitsu Business Communication Systems Vice President Alan Nunokawa.

CONVEX

Convex Computer

Convex Computer is a $200 million company based in Richardson, Texas, a Dallas suburb. Listed on the NYSE, Convex manufactures air-cooled, highly affordable supercomputers. Its systems are especially suited for computer-aided engineering, aerospace simulations, computational chemistry, and petroleum exploration. More than half of Convex's sales are exports, mainly to Japan and Europe.

Convex has been a Fujitsu customer from the time it was a start-up—while its product line was still at the conceptual stage. "We originally chose Fujitsu as a supplier because of the high interest they showed in us although we didn't have any revenue yet," recalls Convex Computer Chairman, President and CEO Robert J. Paluck.

The relationship continued and grew as Convex upgraded and developed its product line. Today Fujitsu provides memories, gate arrays as well as other components, advanced assembly technology, cartridge tape drives, and high-speed tape drives.

"Throughout, Fujitsu has shown excellent cooperation, provided the latest technology and worked with our engineering team to ensure we were using the technology correctly," Paluck notes.

"Fujitsu has supported us in our efforts to stay on the leading edge of technology," Paluck emphasizes. "Our engineers work closely with Fujitsu's engineers. As a result we've been able to offer our customers outstanding, highly competitive products."

FUJITSU MEANS R&D IN AMERICA

Because it understands the importance of applying technology, Fujitsu has always recognized the need to create R&D capabilities locally. Operating standards are different in the U.S. and customer requirements may vary dramatically. Fujitsu's response has been the formation of strategic research centers in the U.S. The results have been significant.

"Our success with U.S. telephone companies has in large part been due to our partnership approach," says Mehmet Balos, marketing director for Fujitsu America's Transmission Division, "allowing us to meet our customers' product, service and support requirements. Because we develop and manufacture many of our products in the U.S., we can meet market changes in a timely fashion."

Promoting Product Development Many of Fujitsu's U.S. operations, therefore, have built up their R&D capability. Fujitsu Microelectronics' Microwave and Optoelectronics Division recently started to develop microwave integrated circuits (MICs) and monolithic microwave integrated circuits (MMICs) locally in the U.S.

Increasingly, Fujitsu's U.S. operations are playing a role in the company's global technology development program—cooperating both with other Fujitsu units and with other companies. Fujitsu Business Communication Systems' R&D facility in Northlake, Illinois is developing application processors for the creation, display and maintenance of the PBX data base, both on its own and in conjunction with Fujitsu's R&D group in Japan.

Application Specific Integrated Circuits (ASIC) operations in Fujitsu Microelectronics' Integrated Circuits Division have concentrated on software development. Working with their counterparts in Japan they have developed ASICOpen™, a system of design tools. "We're also working with independent

Fujitsu's investment supports "engineers with an entrepreneurial flair" at Colorado-based Intellistor.

This California design team developed Fujitsu Microelectronics' family of local area network products.

Greenville EMS

Earlier this year the Emergency Medical Service in Greenville, South Carolina, condu a test with far-reachin implications for coron care in the U.S. Winn the 1990 National Para medic Emergency Me Service System of the award, the Greenville wanted to find a way t speed up treatment of attack victims—both t save lives and to hold down health care cost

One of the big problems in handling heart attack victims is that the three-lead EKG equipment in most EMS vehicles provides only a very basic evaluation of a patient's chest pain. As a result, valuable time can be lost in diagnosing a heart attack and determining what specific medication is needed and even deciding if hospitalization is required.

The Greenville experiment involved putting a more advanced 12-lead EKG machine into EMS units. These EKGs were linked by cellular telephone to the hospital. Thus a diagnosis could be made while the patient was en route and therapy could be immediately applied upon arrival at the hospital. As Greenville County EMS Director Pat Browning explains, the point of the experiment was whether it was possible to send diagnostic quality EKGs to the emergency room using cellular technology.

Metro Mobile Systems, the local cellular operator, lent the Greenville EMS Fujitsu COMMANDER® phones. "We picked Fujitsu because of the phone's sensitivity and selectivity, and because it could be fitted with a digital adaptor," says Jack Plating, Metro Mobile's southeast regional vice president.

"We used the cellular phones throughout the county," Browning observes. "There were no problems: the EKGs done at the scene were a perfect match with the EKGs sent by cellular phone and received at the hospital. That says a lot for the technology."

"This will change the nature of coronary care," Browning adds. "The reduction of time diagnosing and treating a heart attack will mean to some patients that there won't be as much heart damage. Victims will be able to live longer and enjoy a better life, while the cost of care should be reduced."

CAD developers to create design tools and cell libraries customers can use," notes Vice President for ASIC Operations Larry Roffelsen.

Another example of cooperation in the U.S. is the newly renamed Fujitsu Systems Business of America. Now charged with marketing Fujitsu computers in the U.S., it has been working closely with U.S. software companies to create software that can run on Fujitsu machines around the world.

Joining Forces With U.S. Companies Cooperation with U.S. companies is part of the mandate of Fujitsu Microelectronics' Advanced Products Division. It developed the first LSI Ethernet® and StarLAN® controller chip for Ungermann-Bass in 1983 and went on to work on second generation technology with Tiara Computer. "In each case, the whole product concept came from here, working with Fujitsu customers," says Anthony G. Bozzini, director of worldwide marketing and sales.

"What we do," continues Ken Katashiba, senior vice president and general manager of both the Advanced Products Division and the Cooperative Ventures Division, "is evaluate the market, then use Fujitsu's technology and worldwide manufacturing support to define the product, finish it and market it."

Building U.S. R&D Centers Fujitsu recently opened its first Telecommunications Research Center outside Japan on a 100-acre campus in Richardson, Texas. Farther north in Longmont, Colorado, Intellistor operates an R&D center for disk drive technology. Intellistor works closely with Fujitsu to develop storage products for the global marketplace. Currently it has seven major research products underway in three main areas—small form factor disk drives, disk and tape controllers and storage subsystems for magnetic disk tapes.

Founded in 1983 by President Lewis S. Frauenfelder, Intellistor began with a good idea slightly ahead of its time. When his backers wanted to exit, Frauenfelder found in Fujitsu "patient capital" that has enabled his company to more than double in size. Intellistor also now has access to technological resources it could never have afforded before.

"Fujitsu brought a mentality of rigorousness in design, quality and test methodology," Frauenfelder says. "Worldwide, Fujitsu is recognized as a leader in quality. We need that in the U.S. Typically, American companies rush products out too soon because of the quarterly results," Frauenfelder adds.

"We brought to Fujitsu much needed resources—engineers with an entrepreneurial flair—as well as advanced design tools which allow us to use hardware simulators to write microcodes."

Fujitsu brought a mentality of rigorousness in design, quality, and test methodology."

ewis S. Frauenfelder,
ntellistor

FUJITSU MEANS MANUFACTURING IN AMERICA

With five production facilities in operation, manufacturing is clearly an integral part of Fujitsu's approach to the U.S. market, with the goal of giving customers better service. Ikuo Yamaguchi, Fujitsu Microelectronics senior vice president and general manager of Fujitsu's Gresham, Oregon semiconductor wafer fabrication plant, makes the point: "By developing Gresham, we can enhance relations with our customers. We can shorten turnaround times."

A new 100-acre Telecommunications Center in Richardson, Texas expands Fujitsu's manufacturing and R&D capabilities.

Expanding U.S. Production To keep pace with customer demand, Fujitsu is expanding its U.S. production. Fujitsu America's Hillsboro, Oregon factory recently doubled in size and extended its product line. It now manufactures 13 basic products, including controllers, disk drives and Fujitsu's Atrium9000 POS systems.

Fujitsu Microelectronics' wafer fabrication plant is nearby in Gresham. "We now produce 1-megabit DRAMs and ASIC prototypes," says Senior Vice President Rich Christopher. "Current plans call for adding 4-megabit DRAMs to the lineup next year." Fujitsu Microelectronics also has a facility in San Diego, California assembling and testing semiconductors as well as producing hybrid ICs. Fujitsu is enhancing its quality control and expanding its failure analysis capability to speed up response time to customers.

Fujitsu Business Communication Systems' Anaheim, California plant manufactures five PBX product lines, including the technology trend-setting F9600. "In the last couple of years we have come very far in duplicating all the technological capability for these products in the U.S.," explains Vice President Ray Callahan.

Building Economic Growth Fujitsu's fifth plant, in Richardson, Texas manufactures fiber optic and digital loop carrier systems and cellular mobile telephones.

"Following Fujitsu's lead, many other high-technology companies have located new facilities in Oregon."

Oregon Governor
Neil Goldschmidt

This plant is one of the most advanced electronics manufacturing facilities in the U.S. In it, Fujitsu blends its expertise in robotics and process control with the very best in human skills for highly productive manufacturing, maximizing the quality of its finished goods. "Together with the Telecommunications Research Center, this plant represents Fujitsu's commitment to telecommunications in the U.S," emphasizes Project Manager Craig Cox.

"The new plant is a tremendous catalyst for Richardson," says Mayor Charles Spann. "It puts us on the world map of telecommunications and is a big help to the economy. The first phase alone represents an $80 million infusion into our economy."

"Fujitsu's decision to locate in Texas has a very positive impact on the state," agrees Edward O. Vetter, chairman of the Texas Department of Commerce. "When someone comes along and expands rather than buys in—which is what Fujitsu is doing—it is truly exciting business."

Oregon Governor Neil Goldschmidt takes much the same view in evaluating the impact of Fujitsu's investment on his state. "Following Fujitsu's lead," he notes, "many other high technology companies have located new facilities in Oregon. As more and more companies begin operations here, a network of suppliers develops, encouraging further investment in Oregon. This investment helps stabilize the Oregon economy."

Thousands of the cellular telephones Fujitsu manufactures in Texas are exported to Canada and Australia.

Exporting Products From the U.S. Although the primary purpose of Fujitsu's manufacturing operations in the U.S. is to service domestic customers, the company also sees these plants as an important part of the company's global network. Hillsboro ships magnetic tape controllers—developed by Intellistor—and large-capacity magnetic disk drives to Japan and Europe, as well as communications control processors to Japan. Cellular mobile telephones manufactured in Richardson, Texas go to Australia and Canada.

FUJITSU MEANS COOPERATION

Fujitsu's approach to its customers in the United States and Canada can be seen in a commitment to cooperation. It is no accident that this year, again, a Fujitsu unit—this time Fujitsu Microelectronics—received the coveted Unisys Supplier Excellence Award.

Working With Start-Ups Fujitsu also has a long history of cooperating with new companies. It collaborated with Sun Microsystems to create the RISC (Reduced Instruction Set Computer) microprocessor. It joined forces with Poqet Computer to build a pocket-size computer with all the power of a PC. More recently it began working with start-up Crosscheck Technology—now developing the first radically new ASIC test technology in the last ten years.

Backing Entrepreneurship Even Fujitsu Customer Service—Fujitsu's 24-hour information and service company—is involved. Mark Baran of Page Composition credits it with helping to make his business possible by providing service back-up.

"We do find we are dealing with many more small companies," comments Dick Rinaldi, senior vice president and chief operating officer of Fujitsu Customer Service. "We're increasingly involved with smaller entrepreneurs, helping them survive—and succeed—in their business."

Supporting VARs Fujitsu sells many of its products through value-added resellers (VARs), who package and market Fujitsu's products with their own software and features. Fujitsu Systems of America, for example, has 17 VARs for its point-of-sale (POS) products. STS of Pointe Claire, Quebec, Canada, is a typical Fujitsu VAR providing its North American customers with back office and POS systems designed mostly for fashion retailers. "Fujitsu has excellent technology and is not drowned in bureaucracy," says President Howard Stotland.

"We're increasingly involved with smaller entrepreneurs, helping them survive—and succeed in their business."

Dick Rinaldi,
Fujitsu Customer Service

Buying Local Like many high technology companies, Fujitsu gets many of its components and sub-assemblies from suppliers. One of the first priorities of each Fujitsu plant has been to establish a local supplier base. Fujitsu America's Hillsboro plant has more than 20 active local suppliers. In addition, it plays an increasingly important role qualifying North American vendors for Fujitsu's global sourcing program.

At Anaheim, California, Fujitsu Business Communication Systems' Ray Callahan remarks, "While cost is of primary importance, I prefer to buy locally, because of the shorter lead times we usually encounter." Upwards of 80% of each Anaheim product line can be purchased locally.

Innovations In Education Cooperation extends beyond business. An example of Fujitsu's commitment is JAIMS, the Japan-America Institute of Management Science. Founded by Fujitsu 18 years ago as an independent institution, JAIMS has grown to become a pacesetter in international business management education.

Under its president, Hideto Kono, formerly a leading businessman and Hawaii state official, JAIMS has become an educational innovator. In conjunction with the University of Hawaii, it has launched a Japan executive MBA program in which students learn both Western and Japanese management techniques. More recently, it has launched an Information Management program.

The Institute is also producing innovative computer software and audio tapes as supplemental instructional aids for Japanese-language students or, indeed, anyone interested in conducting business in Japan. These aids offer an exciting, refreshingly different approach to Japanese language-learning.

JAIMS provides cross-cultural management training for students on both sides of the Pacific Rim, and beyond.

For information, contact:
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6660 Hawaii Kai Drive
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Phone: (808) 395-2314

The text of this special advertising section was written by Christopher S. Gray, Ph.D. Dr. Gray is an expert on Japan and Japanese business in the U.S.

An Open Sytems Center in San Jose, California helps U.S. software developers adapt their products to Fujitsu computers.

Sequent Computer

Portland, Oregon-based Sequent is an aggressive manufacturer of high-end, quality computer systems. Since the company was founded eight years ago, growth has averaged 80% annually—with sales last year reaching $146 million.

Fujitsu has been a Sequent supplier for seven and a half years. "We make higher performance machines," says Senior Vice President Lary Evans. "When we started, Fujitsu offered a disk drive that was the high performance leader. Today, Fujitsu is our largest supplier," Evans continues. "We buy peripherals and memory products."

Sequent's strategy is to focus on a limited number of vendors with products and components that meet the company's high standards. "We have a small supplier base," Evans says. "We work very closely with them—that's an integral part of the relationship we have with our suppliers. With a product like ours, a lot of the quality and reliability is put in upfront. There has to be close design interface. Fujitsu's reliability in the marketplace is an advantage," Evans notes.

SEQUENT

Then there is quality. "If there is one thing this company respects it is quality," Evans says. "Our field data shows Fujitsu products are of superior quality."

Sequent also values the give and take in its relationship with Fujitsu. "When you're growing as fast as we're growing, controls on what is needed are not as finely polished as in a slow-growth company," Evans acknowledges. "Fujitsu is always willing to meet our needs."

Looking ahead, Evans points out that Sequent's growth depends on its ability to continue to show technological leadership. "We continue to see opportunities to grow at the same rate. We have no concern about Fujitsu keeping up as a supplier as we grow."

FUJITSU GROUP COMPANIES IN NORTH AMERICA

Fujitsu America, Inc.

Corporate Headquarters
3055 Orchard Drive
San Jose, California 95134-2022
(408) 432-1300
Fax: (408) 432-1318 / 1319

Cellular Mobile Telephone Division
2801 Telecom Parkway
Richardson, Texas 75082
(214) 690-6000
Fax: (214) 497-6981
Designs, manufactures and markets the complete line of FUJITSU cellular telephones

Computer Products Group
3055 Orchard Drive
San Jose, California 95134-2022
1-800-626-4686; (408) 432-1300
Fax: (408) 432-1318 / 1319
Manufactures and markets Winchester and flexible disk drives, tape drives, controllers and storage subsystems for small- to large-scale computer systems

Informaton Systems Division
3055 Orchard Drive
San Jose, California 95134-2022
1-800-233-1798; (408) 432-1300
Fax: (408) 434-0475
Develops, manufactures, markets and supports integrated, distributed computer systems and related software products

Private Networks Division
2801 Telecom Parkway
Richardson, Texas 75082
(214) 690-6000
Fax: (214) 497-6985
Designs, develops, manufactures, markets and supports digital switching systems, digital transmission equipment, and network management systems for private telecommunications networks

Transmission Division
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Richardson, Texas 75082
1-800-777-FAST; (214) 690-6000
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Fujitsu Business Communication Systems, Inc.

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Anaheim, California 92806
(714) 630-7721
Fax: (714) 630-2991

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Fax: (602) 921-4800
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Fujitsu Component of America, Inc.

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San Jose, California 95134
1-800-441-2345, ext. 238 (CA only)
1-800-556-1234, ext. 238
Fax: (408) 432-9044
Designs, manufactures, markets and supports a broad line of electronic components for the communications, computer, consumer and industrial markets

Fujitsu Customer Service of America, Inc.

11085 North Torrey Pines Road
La Jolla, California 92037
1-800-345-0845; (619) 457-9900
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Comprehensive customer service for Fujitsu products in the United States and Canada, from hotline response and technical information about products to maintenance and repair

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Develops, markets and services facsimile and electronic imaging systems and peripherals

Fujitsu Microelectronics, Inc.

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3545 N. First Street
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Advanced Products Division and Cooperative Ventures Division
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San Jose, California 95134-1807
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Designs advanced microelectronic products including the SPARC™ chip family and the Ethernet™ controller

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San Jose, California 95134
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3330 Scott Boulevard
Santa Clara, California 95054-3101
(408) 562-1550
Fax: (408) 727-3194
Designs and markets microwave and lightwave semiconductor devices worldwide

Fujitsu Network Switching of America, Inc.

Corporate Headquarters and Switching Division
4403 Bland Road
Somerset Park
Raleigh, North Carolina 27609
(919) 790-2211
Fax: (919) 790-8376
Designs and markets ISDN terminals and central office switching equipment, including the FETEX™-150 central office switch

ISDN Network Terminals Division
3055 Orchard Drive
San Jose, California 95134
(408) 954-1088
Fax: (408) 432-9859

Fujitsu Systems Business of America, Inc

2988 Oakmead Village Court
Santa Clara, California 95051
(408) 988-8012
Fax: (408) 492-1982
Markets Fujitsu computers and works with software companies to develop software for Fujitsu computers

Fujitsu Systems of America, Inc.

12670 High Bluff Drive
San Diego, California 92130-201
(619) 481-4004
Fax: (619) 481-4093
Designs and markets computer-based business systems, including retail POS, handheld computer a mobile route distribution system and automated teller machines

Intellistor, Inc.

2402 Clover Basin Drive
Longmont, Colorado 80503
(303) 682-6400
Designs advanced intelligent st devices which are manufacture by Fujitsu

Fujitsu Canada, Inc.

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WHERE DO YOU GO FROM HERE? FOUR STREETWISE STRATEGIES

With many stocks hammered down to new lows, some pros see good buys in surprising sector

Woody Allen is no Warren Buffett, it's true. But nowadays, some investment managers are paying heed to one of Allen's more sardonic maxims: "80% of success is just showing up."

With many stocks hammered down to new lows, these pros argue that in 1991, investors who just "show up" in the stock market should do well. They emphasize, however, that investors will increase their chances to see some hefty profits by selective buying during dips.

Of course, with the economy in recession and the standoff in the gulf adding to uncertainty, a horde of bears are cautioning investors to avoid stocks. Here's how some savvy pros on both sides of the fence view 1991:

MARTIN D. SASS, founder, chief executive officer, and chief investment strategist at M. D. Sass Investors Services Inc., a New York money-management firm that shepherds some $3 billion:

"Cash will no longer be king. The era of high real-cash returns has run its course," he says. Stocks and bonds will be the best place to be, Sass believes. Short-term paper will show declining yields, he adds, as Treasury-bill rates decline from the present 7.3% to 6% by mid-1991.

Sass says the markets overseas aren't the place to be, either. He expects those markets to lag behind the U. S. market, as they did this year. The dollar should strengthen. Tangible assets—real estate, art, and collectibles—also should be avoided. "They will generally be under pressure in the disinflationary environment we see ahead."

The combined impact of a soft economy and the Federal Reserve Board's credit-easing have sent interest rates falling across the board, and high-quality bonds appreciated accordingly. Sass is bullish on bonds also because he expects inflation to come in at about 4% in 1991, well below the rate for 1990. But he likes bonds on more than cyclical grounds. "As a result of the deleveraging phenomenon in the 1990s, the drop in short-term rates could be a long-term secular reality and not a purely cyclical pro-" he says.

Sass's aggressive accounts that tolerate a downside risk of 15%, he puts 65% of assets in stocks and 35% in bonds. For "moderate" portfolios that tolerate a 10% risk, 50% are in equities and 50% in bonds. In conservative accounts tolerating just a 5% risk, 75% of assets are in bonds, 25% in stocks, and zero in cash.

The stock market's upward march in 1991, he believes, will be led by the neglected and undervalued sectors. The medium-to-small company stocks, he says, ought to perform well. The big-cap stocks, primarily the consumer nondurable stocks that have long dominated the market, are likely to be a drag next year, Sass believes. The stocks he buys have these characteristics: strong balance sheets, market dominance, price-earnings multiples no higher than the market's, and self-financing capabilities.

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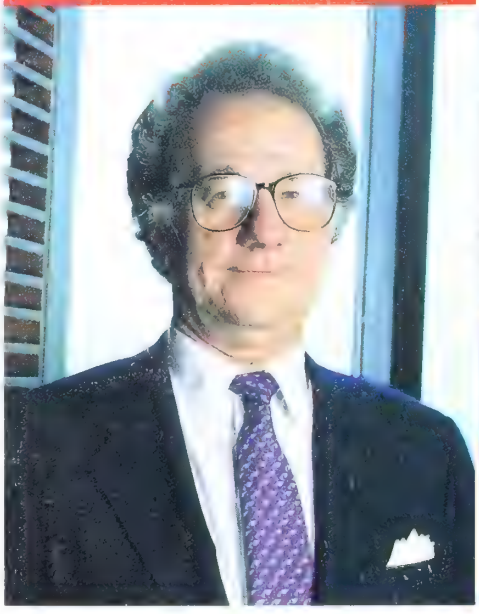

"The watchword for 1991 may well b 'cyclicals' "
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Gramercy Capital Management

ken in the next several months by the ore cyclical stocks. Among the attrac-e sectors: aluminum, housing, paper d forest products, retailing, and appli-ces. Since publishers of newspapers d magazines have become "more ma-re and more cyclical, they, too, have come an appropriate investment play," e says.

Top-performing Gramercy, which post- a compounded rate of return of 55% st year, concentrates its portfolio on st 10 to 20 stocks and only in U. S. uities. It shuns leveraging, such as e use of margins, options, futures, or ner synthetic securities. And right w, Gramercy owns only two cyclicals: tailer Merry-Go-Round Enterprises d women's apparel maker Liz Clai-rne. They have low debt, says Lappin, d are growing nicely despite the prob-ns currently plaguing retailers. Also, ey have been repurchasing their own ares. As the economy improves, "we end to own much more economy-sensi-e stocks than we do right now," says ppin.

She also likes biotechnology and high-chnology stocks. In biotechs, Lappin is gh on Immunex as well as Centocor d Chiron. Alza is another stock she lieves is poised to jump, because the od & Drug Administration is expected approve some of its products. In the battered technology sector, she believes Conner Peripherals and Cypress Semiconductor have performed relatively well in 1990 and will "do even better when the economy gets stronger."

Of the four, only Miller nixes stocks. Based on book value and yield, he says it's an expensive market

MICHAEL METZ, chairman of the Stock Selection Committee and chief investment strategist at Oppenheimer & Co.:

"Although the investment climate will be tough, you'll have to be in stocks to win," advises Metz. The recession will be long-lasting but shallow, he thinks, so he doesn't expect corporate earnings to go into a dive.

He cautions, however, that investing in the overall market by buying stock indexes—a popular strategy in the 1980s—won't give the investor juicy returns in 1991. Instead, one smart strategy should be to concentrate on a new wave of buyouts. The stock plays will be in the medium-size companies because that's where attractive merger and takeover targets will be found, Metz says.

Among the companies that he views as potential strategic buyout targets, Metz is high on newsprint and coated-paper producer Bowater; electronic-component maker Tektronix; bank holding company NCNB; Carter-Wallace, a drug and health care company; and computer maker Digital Equipment.

Metz likes health care for another reason: It's where "you can find a lot of growth stocks," he says. Among his picks: Bristol-Myers Squibb and Abbott Laboratories. He also favors the single-country mutual funds, which have been beaten down and sell at big discounts to net asset value.

CHARLES MILLER, chairman, president, and chief executive officer of Transamerica Criterion Group Inc., which manages $10 billion for large private clients and 24 mutual funds:

"The best investments in the U. S. in 1990 were cash and equivalents, and they will be the best investments in 1991," asserts Miller, who is negative about the overall investment environment, particularly stocks.

The nation's weak financial structure, for one, could break down, he warns. The corporate sector, too, is in trouble because of poor earnings and high interest rates. Based on book value and yield, the stock market remains expensive, Miller believes.

But his major concern is Washington. "The Bush Administration has been badly damaged and has clearly demonstrated that the nation doesn't have the needed leadership that could resolve the nation's gargantuan problems of the budget deficit and recession," he says. At the same time, he fears a Persian Gulf war—and not only for what it would do to the economy. Miller warns that should war come, it will surely "divide the nation."

Miller has put nearly 100% of his assets in cash and equivalents, such as T-bills and commercial paper. He is also holding high-quality long-term corporate and government bonds.

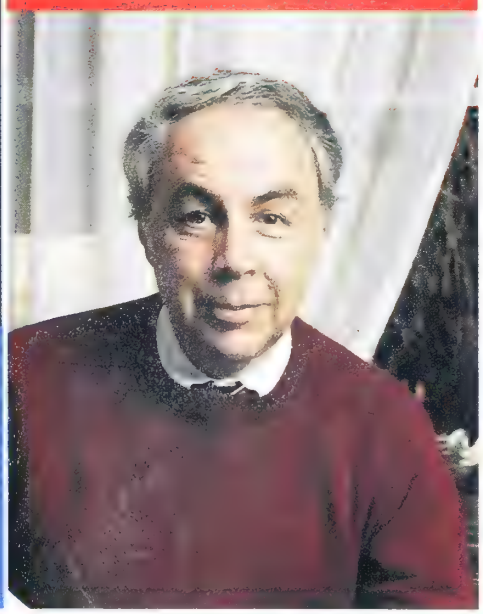
Miller explains that even if his worst-case scenario fails to materialize, the cash instruments and high-quality bonds will outperform all other kinds of investments. Over the near term, the stock market might appear to be O. K. But Miller cautions that the risk is "very high and the rewards very low. The last place you should be investing is in stocks."

Miller's worries are not to be dismissed out of hand. But Sass, Lappin, and Metz would argue that the stock market has already discounted most if not all of them. And that stocks have nowhere to go but up.

By Gene G. Marcial in New York

"Cash is no longer king . . ."
MARTIN D. SASS
M. D. Sass Investors Services Inc.

"A new wave of strategic buyouts"
MICHAEL METZ
Oppenheimer & Co.



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Top-performing Gramercy, which post- a compounded rate of return of 55% st year, concentrates its portfolio on st 10 to 20 stocks and only in U. S. uities. It shuns leveraging, such as e use of margins, options, futures, or ner synthetic securities. And right w, Gramercy owns only two cyclicals: tailer Merry-Go-Round Enterprises d women's apparel maker Liz Clai- rne. They have low debt, says Lappin, d are growing nicely despite the prob- ns currently plaguing retailers. Also, ey have been repurchasing their own ares. As the economy improves, "we end to own much more economy-sensi- e stocks than we do right now," says ppin.

She also likes biotechnology and high- chnology stocks. In biotechs, Lappin is gh on Immunex as well as Centocor d Chiron. Alza is another stock she lieves is poised to jump, because the od & Drug Administration is expected approve some of its products. In the

Of the four, only Miller nixes stocks. Based on book value and yield, he says it's an expensive market

battered technology sector, she believes Conner Peripherals and Cypress Semiconductor have performed relatively well in 1990 and will "do even better when the economy gets stronger."

MICHAEL METZ, chairman of the Stock Selection Committee and chief investment strategist at Oppenheimer & Co.:

"Although the investment climate will be tough, you'll have to be in stocks to win," advises Metz. The recession will be long-lasting but shallow, he thinks, so he doesn't expect corporate earnings to go into a dive.

He cautions, however, that investing in the overall market by buying stock indexes—a popular strategy in the 1980s—won't give the investor juicy returns in 1991. Instead, one smart strategy should be to concentrate on a new wave of buyouts. The stock plays will be in the medium-size companies because that's where attractive merger and takeover targets will be found, Metz says.

Among the companies that he views as potential strategic buyout targets, Metz is high on newsprint and coated-paper producer Bowater; electronic-component maker Tektronix; bank holding company NCNB; Carter-Wallace, a drug and health care company; and computer maker Digital Equipment.

Metz likes health care for another reason: It's where "you can find a lot of growth stocks," he says. Among his picks: Bristol-Myers Squibb and Abbott Laboratories. He also favors the single-country mutual funds, which have been beaten down and sell at big discounts to net asset value.

CHARLES MILLER, chairman, president, and chief executive officer of Transamerica Criterion Group Inc., which manages $10 billion for large private clients and 24 mutual funds:

"The best investments in the U. S. in 1990 were cash and equivalents, and they will be the best investments in 1991," asserts Miller, who is negative about the overall investment environment, particularly stocks.

The nation's weak financial structure, for one, could break down, he warns. The corporate sector, too, is in trouble because of poor earnings and high interest rates. Based on book value and yield, the stock market remains expensive, Miller believes.

But his major concern is Washington. "The Bush Administration has been badly damaged and has clearly demonstrated that the nation doesn't have the needed leadership that could resolve the nation's gargantuan problems of the budget deficit and recession," he says. At the same time, he fears a Persian Gulf war—and not only for what it would do to the economy. Miller warns that should war come, it will surely "divide the nation."

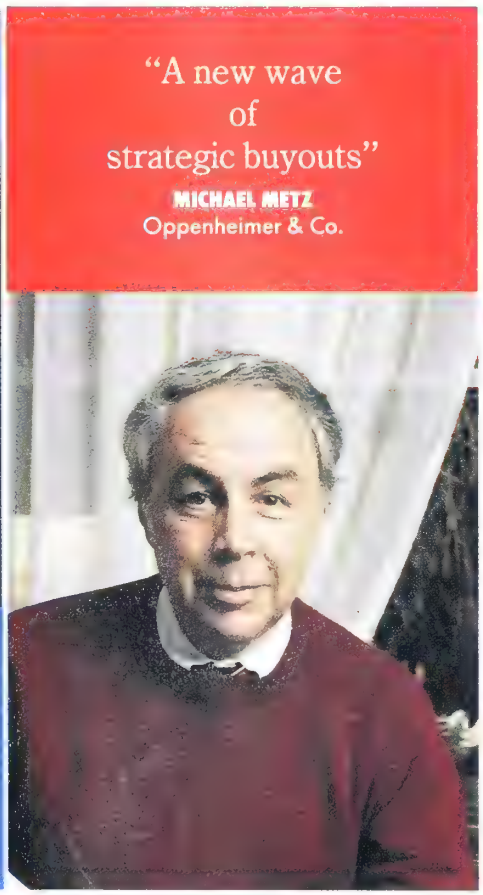
Miller has put nearly 100% of his assets in cash and equivalents, such as T-bills and commercial paper. He is also holding high-quality long-term corporate and government bonds.

Miller explains that even if his worst-case scenario fails to materialize, the cash instruments and high-quality bonds will outperform all other kinds of investments. Over the near term, the stock market might appear to be O. K. But Miller cautions that the risk is "very high and the rewards very low. The last place you should be investing is in stocks."

Miller's worries are not to be dismissed out of hand. But Sass, Lappin, and Metz would argue that the stock market has already discounted most if not all of them. And that stocks have nowhere to go but up.

By Gene G. Marcial in New York

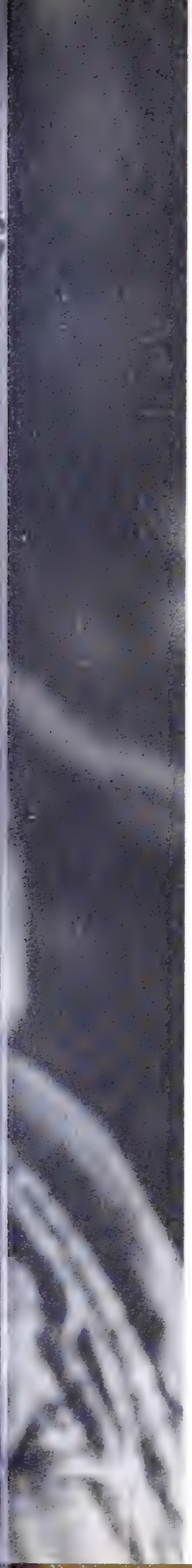
"Cash is no longer king . . ."
MARTIN D. SASS
D. Sass Investors Services Inc.



"A new wave of strategic buyouts"
MICHAEL METZ
Oppenheimer & Co.

TEGIES FOR STOCKS

BUSINESS WEEK/DECEMBER 31, 1990 107



A FEW WORDS ON THE 1990 MALCOLM BALDRIGE NATIONAL QUALITY AWARD.

There are a number of awards given to automobiles these days. And, perhaps, that's what makes the Baldrige Award so special: it's not one of them.

NOT AN AUTOMOTIVE AWARD

For one thing, it's given not to a product but to a company.

For another, it's not limited to automotive companies but is open to businesses of all kinds.

Then again, it has the distinction of being presented in Washington, D.C., by officials of the United States Department of Commerce.

And finally, there's the reason it was created in the first place—to help raise the quality of all American business and make this country more competitive.

ESTABLISHED BY CONGRESS

The award came about three years ago when Congress created it in memory of the late Malcolm Baldrige—Secretary of Commerce from 1981–1987. Since then, it has quickly become this country's highest honor for quality in business, and the prize most sought by businesses of all kinds. For to win it is to be judged as a role model for companies everywhere.

But to win it, a company must first go through one of the most rigorous examinations ever devised. A comprehensive, top-to-bottom analysis of its people, processes and principles—complete with personal interviews calculated to reveal to what extent the quality ethic is integral to everything they do.

167,000 APPLICATIONS THIS YEAR

So comprehensive is this process, and so high are the standards, that of the thousands of different companies that applied for consideration this year alone, fewer than 100 were judged sufficiently qualified to go on to the final round.

For Cadillac to emerge from that field as the first automotive company ever to win this coveted honor, then, is on the one hand a confirmation of their total commitment to quality.

But to the people of General Motors—to the designers, engineers, managers, suppliers, assembly workers, test drivers, dealers and everyone else, Cadillac's winning the 1990 Baldrige Award has far greater meaning than that.

A SHARED COMMITMENT

It means that the passion, pride and commitment to quality that everyone at General Motors shares with the people of Cadillac have just been validated.

It means that things such as teamwork, continuous improvement, constant attention to the voice of the customer and setting the highest quality standards for suppliers—things on which Cadillac was judged, and beliefs and values shared throughout all GM—are precisely the things we need to be doing in order to redefine quality as a lasting source of pride and satisfaction for our customers.

And it means that the concept of the Quality Network—of management and labor working together to one common goal, of even making sure that whatever differences might possibly arise, they are never allowed to affect the quality of our products—is more than ever the future of General Motors.

DOWN THE ROAD

And it is in looking ahead to that future that the Baldrige Award will mean the most. For in Cadillac's winning it, we see not victory, but promise. Not the end of the road, but a sign that we're on the right one—and an inspiration to continue.

AND WHAT CADILLAC'S WINNING IT MEANS TO US.

PUTTING QUALITY ON THE ROAD

GM

Chevrolet Pontiac Oldsmobile Buick Cadillac GMC Truck

Mutual Funds

THESE DAYS, THE LONG VIEW MAY BE THE ONLY VIEW

In 1990, it was tough to make a killing in mutual funds—but so far, investors haven't flinched

It was the sort of year that makes fund managers consider another line of work. The combination of a looming recession, the threat of war in the Mideast, and a bear market may cause the mutual-fund industry in 1990 to turn in its worst performance since 1974.

Remarkably, mutual-fund investors seemed unfazed. Through the first 10 months of 1990, sales of equity funds exceeded redemptions by $21.3 billion, according to the Investment Company Institute. Including reinvested dividends, $60 billion of new money was put into equity funds through Oct. 31. That compares with $54.5 billion for all of 1989, when the Standard & Poor's 500-stock index delivered a return of 31.5%. "The most interesting thing about 1990 was what didn't happen," says John C. Bogle, chairman of Vanguard Group Inc. "Despite a tough market, sales did not diminish, and redemptions did not increase significantly."

Having lived through Bloody Monday in October, 1987, and 1989's minicrash, most investors are taking the long view. Buy and hold has replaced the speculative fever of the '80s. In a monthly survey by Fidelity Investments and the University of Michigan, twice as many investors said they planned to buy equity funds in November as did in July, at the market's peak. "There's been a dramatic change in the psyche of investors," says Michael Hines, vice-president for marketing at Fidelity. "They no longer demand instant gratification."

In today's market, that's a good thing. The average equity fund was down 8.14% for the year, according to Morningstar Inc., compared with a 4.13% drop in the S&P 500. (All 1990 numbers reflect results through Dec. 14.) Fidelity Magellan, the nation's largest mutual fund, with $11.3 billion, lost 5.84% of its value in the wake of the departure of longtime manager Peter Lynch. Mutual funds as a group typically underperform the stock market by an average of 2%, but in 1990, the gap more than doubled. The major reason, say some fund managers, was that many portfolios were heavily weighted toward small-capitalization stocks in anticipation of a rally that never materialized.

BUCKING TRENDS. Not all investors shrugged off adverse economic and political news, which may help account for the brisk sales of fixed-income funds. Through October, sales of bond funds exceeded redemptions by $19.9 billion, compared with $12.7 billion during the same period in 1989. The move toward fixed-income securities accelerated in August, after Iraq invaded Kuwait. During 1990, taxable bond funds fared better than equity funds, earning a 4.05% return. Money-market funds, a traditional refuge in troubled times, also attracted many new investors.

Despite the market's overall anemic performance, a few industry groups stood out, particularly those that tend to be recession-resistant. Specialty health-care funds delivered the highest return of any fund category, with a 20.35% gain. They also turned in the best five-year performance, with an average annual gain of 20.24%. Seven of the top 10 funds for 1990 were in health care. Leading the list were two Fidelity funds. Fidelity Select Biotechnology, which invests heavily in health-related issues, delivered a stunning 42.49% return. Fidelity Select Health Care was next, at 23.05%. Its manager, Andrew Offit, is optimistic about 1991. "Demand for high-quality health care is driving new product development, leading to higher profits," he says.

Funds that did poorly in 1990 tended to be in financial and cyclical issues. The prime example is the Windsor Fund, the nation's second-largest equity fund, with $6.2 billion in assets, which suffered a 16.40% decline. Don Phillips, editor of

THE BEST OF THE BOND FUNDS

1990's BEST TAXABLE BOND FUNDS

	Total return*
Kemper Global Income	22.19%
Intl. Cash High-Income Currency	20.59
Intl. Cash Hard Currency	20.11
Scudder International Bond	20.04
MFS Worldwide Governments	17.47
Dean Witter World Wide Income	17.08
PaineWebber Master Global Income	16.83
Van Eck World Income	16.75
T. Rowe Price International Bond	15.93
Putnam Global Governmental Income	15.28
Average for 450 funds	4.05

1990's BEST TAX-FREE BOND FUNDS

	Total return*
Fidelity High-Yield Tax-Free	8.01
Premier State Municipal Bond PA	7.93
Premier State Municipal Bond MD	7.71
USAA Tax-Exempt California Bond	7.57
Premier CA Municipal Bond	7.56
Shearson New Jersey Municipals	7.55
Dreyfus NJ Municipal Bond	7.51
Spartan CA Municipal High-Yield	7.43
Premier State Municipal Bond MN	7.39
General CA Municipal Bond	7.33
Average for 388 funds	6.15

FIVE-YEAR BEST: TAXABLE BOND FUNDS

	Average annual return*
Benham Target Maturities 2005	22.19%
Benham Target Maturities 2000	19.90
Benham Target Maturities 2010	19.77
MFS Worldwide Governments	16.85
Benham Target Maturities 1995	16.66
Benham Target Maturities 1990	13.37
Phoenix Convertible	11.28
General Electric S&S Long-Term Int.	10.39
[illegible]	9.91
Vanguard Preferred Stock	9.91
Average for 184 funds	7.93

FIVE-YEAR BEST: TAX-FREE BOND FUNDS

	Average annual return*
SteinRoe Managed Municipals	10.85%
SteinRoe High-Yield Municipals	10.78
United Municipal Bond	10.64
Financial Tax-Free Income Shares	10.59
Mutual of Omaha Tax-Free Income	10.49
Fidelity Aggressive Tax-Free	10.23
T. Rowe Price Tax-Free High-Yield	10.21
SAFECO Municipal Bond	10.21
Seligman Tax-Exempt National	10.20
Kemper Municipal Bond	10.09
Average for 167 funds	8.58

*Appreciation plus reinvested dividends and capital gains through Nov. 30

DATA: MORNINGSTAR INC

ngstar's *Mutual Fund Values*, Windsor manager John Neff ght cyclicals and financials because were bargains, but they just got er."

ong fixed-income funds, those in- d in foreign bonds led the pack, y because of the steadily falling . International bond funds showed 20% average return for the year, ighest of any group (both equity ixed-income) except for specialty care. The Kemper Global Income was the best-performing taxable fund, with a 22.19% gain. Will in- ional bond funds be back in the) next year? Many fund managers it, on the grounds that the dollar e close to its low.

JUNK. On the other side of the income spectrum were high-yield, nk-bond, mutual funds, the undis- dogs of 1990. Due to a wave of lts, they posted a decline of 10.97%. all but wiped out the big gains by funds a few years ago. Over the ive years, junk funds produced a 2.77% annual return.

ny fugitives from junk funds, as as other disenchanted investors, moved their cash to money-market , which invest in Treasury securi- nd other short-term instruments. ding to *IBC/Donoghue's Money Report*, taxable money funds d 7.88% in the 12-month period end- ov. 30. While money-market funds nvestors easy access to their cash, may not be the best place to park during a recession, when short- rates are likely to drop.

the Federal Reserve Board tries to the recession with easier money, industry observers expect that in- s in fixed-income funds will try to up higher returns by moving out er along the yield curve—in other , buying into funds that invest in r-term bonds. But market timing is s a tricky game. One way to avoid work is to invest in an indexed mutual fund, which tracks the uni- of investment-grade bonds.

mutual-fund investors, the unfold- ecession is hardly cause for rejoic- ut the picture may not be as bleak looks. In a recent study, the Tem- funds analyzed the last eight re- ns and found that in five of them, arket was higher at the end than beginning. The evidence in favor g-term investing is compelling. Yet mutual-fund investors no longer to require instant gratification, it's ful that they will be willing to de- indefinitely. If fund managers improve their performance soon, may find themselves joining invest- bankers in the unemployment line.

By Monica Roman in New York

EQUITY FUNDS: THE LARGEST, THE BEST, THE WORST

Equity-fund managers took a royal thrashing in 1990. Collectively, fund portfolios suffered probably their worst loss since 1974. The smart minority loaded up on recession-proof issues in the health care and food industries. Precious metals players took the heaviest drubbing.

THE 10 LARGEST EQUITY FUNDS

Fund	Assets* Billions	Total return** 1990	5-year avg.
Fidelity Magellan	$11.32	-5.84%	15.00%
Windsor Fund	6.18	-16.40	8.38
Investment Co. of America	5.30	-0.36	14.08
Washington Mutual Inv.	4.87	-5.59	12.80
Fidelity Puritan	4.18	-7.19	9.67
Fidelity Equity-Income	$3.85	-14.33%	7.85%
Templeton World	3.63	-14.36	9.10
Pioneer II	3.59	-11.37	8.80
American Mutual	3.20	-2.73	11.73
Affiliated Fund	3.05	-6.40	11.18

*As of Sept. 30 **Includes dividends and capital gains. 1990 returns through Dec. 14; five-year, through Nov. 30

DATA: MORNINGSTAR INC

1990 BEST

	Total return*
Fidelity Select Biotechnology	42.49%
Fidelity Select Health Care	23.05
Financial Strategic Health Sciences	21.98
Vanguard Specialized Health Care	15.66
Fidelity Select Computers	15.10
Putnam Health Sciences	14.50
G.T. Global Health Care	13.05
Equity Strategies	12.75
Fidelity Select Medical Delivery	12.32
Mathers Fund	9.78
Pax World	9.51
Gateway Index Plus	8.75
State Farm Balanced	8.38
Fidelity Select Food & Agriculture	8.26
SFT Asset Allocation	7.83
Average for 620 equity funds	**-8.14%**
S&P 500-stock index	**-4.13%**

FIVE-YEAR BEST

	Average annual return*
G.T. Japan Growth	29.66%
Financial Strategic Health Sciences	25.28
Nomura Pacific Basin	23.96
Merrill Lynch Pacific A	23.76
G.T. Pacific Growth	23.40
Japan Fund	22.97
First Investors Global	21.32
Templeton Foreign	20.85
Fidelity Overseas	20.82
G.T. International Growth	20.21
Fidelity Select Food & Agriculture	20.20
Trustees' Commingled International	20.03
T. Rowe Price International Stock	19.61
GAM International	19.58
Vanguard Specialized Health Care	19.54
Average for 504 funds	**8.87%**
S&P 500-stock index	**13.60%**

1990 WORST

	Total return*
Strategic Investments	-49.54%
Strategic Silver	-44.20
Steadman Ocean, Tech. & Growth	-43.54
Sherman Dean	-43.31
Prudent Speculator Leveraged	-40.50
United Services Gold Shares	-40.17
Washington Area Growth	-36.77
Bull & Bear Special Equities	-35.79
United Services World Gold	-34.64
International Investors	-33.90
USAA Investment Gold	-33.82
Thomson Prec. Metals & Natural Res.	-31.97
IDS Precious Metals	-31.76
Financial Strategic Gold	-31.75
Van Eck Gold Resources	-31.58

FIVE-YEAR WORST

	Average annual return*
American Heritage	-16.64%
Steadman Ocean, Tech. & Growth	-14.72
Strategic Gold/Minerals	-13.05
Steadman American Industry	-11.69
44 Wall Street	-11.37
Strategic Silver	-11.27
United Services European Equity	-9.05
Strategic Investments	-6.17
Fidelity Select Electronics	-5.82
Merrill Lynch Special Value A	-5.77
Steadman Investment	-5.15
Security Ultra	-4.02
T.V. EuroPacific	-3.68
Steadman Associated	-3.66
Wells Fargo Small Companies Stock	-3.42

*Appreciation plus capital gains through Dec. 14 for 1990 figures and Nov. 30 for five-year numbers

DATA: MORNINGSTAR INC

Staff
TOUR BLADE
Staff
TOUR BLADE
Staff
TOUR BLADE
Power Bilt

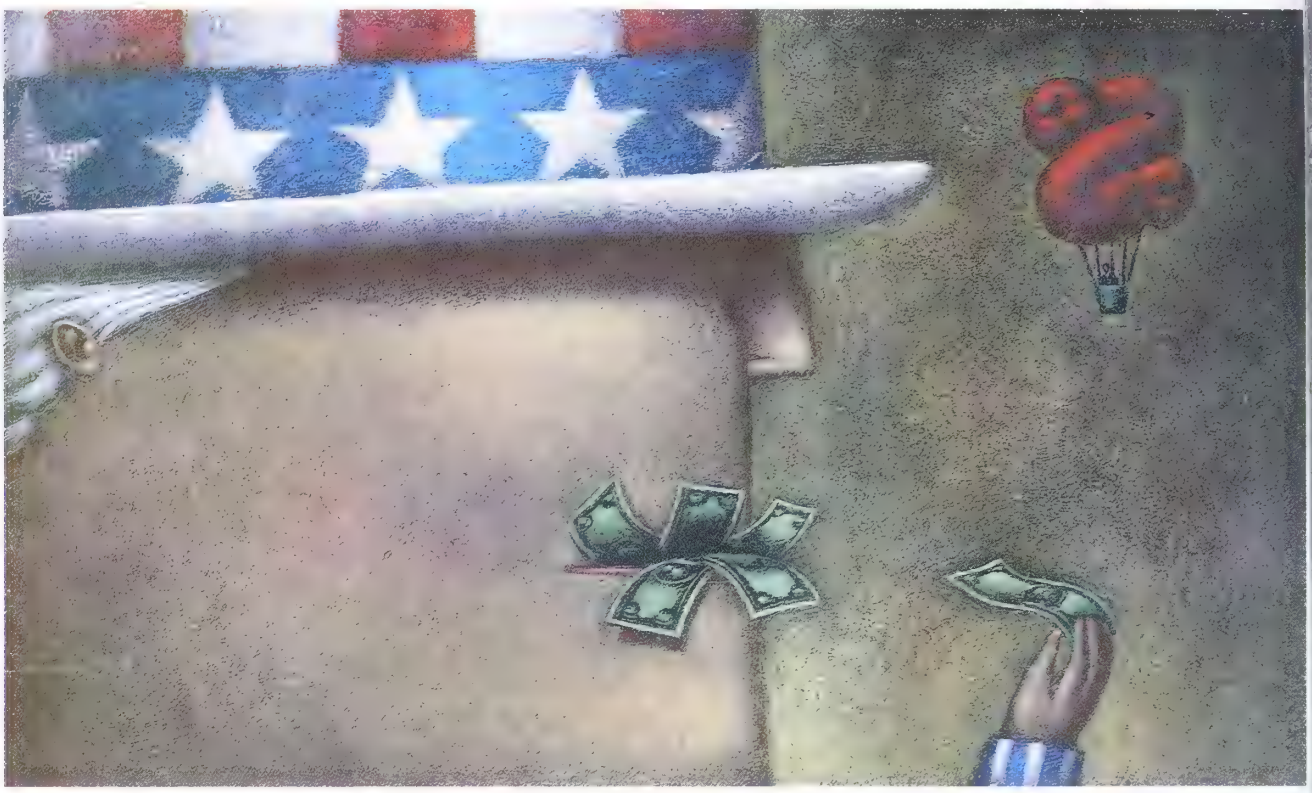
WOULD YOU ASK AN AMATEUR WHICH ONE TO CHOOSE?

Today, since the financial market has the world as its playing field, it's important to know how to play the game with the best tools available. The bank which has been taking a lead in these trends is BCI, the Italian bank with the most international outlook and vocation. An ideal partner, the bank can supply highly specialized assistance to the business decision process. In New York, for example, the heart of finance, we have specialized personnel, both Italian and American, and we can offer an optimum integration of contacts in the two different markets. This gives our clients many advantages in their domestic and international activities. And naturally, we can offer all the most advanced and personalized options such as short and medium term loans, syndicated and non-syndicated, financing for acquisitions and mergers, trade financing, currency and interest rate swaps, options and other innovative products. If you're a player in the international game, we can offer you the winning mix of financial technology and individual creative solutions.

BANCA COMMERCIALE ITALIANA

ITALIAN LEADING BANK

Bonds



AFTER A STORMY YEAR, BOND PRICES COULD FLOAT UP, UP, AND . . .

The recession—and lower rates—are luring investors back to the relative safety of bonds

The perverse truth about the bond market is that, while recessions are usually bad for stocks, they are often very good for bonds. From the beginning to the end of the 1981-82 recession, long-term Treasuries and investment-grade corporates earned a 44% return, compared with 10% for stocks. And there's no reason that things will be much different in today's recession.

With inflation less of a concern, the Federal Reserve Board is lowering rates, which pushes up bond prices. "Relief is a three-letter word, spelled F-E-D," says Bruce Steinberg, head of macroeconomic analysis for Merrill Lynch & Co. Relief is also spelled F-E-A-R. The recession is luring investors to the relative safety of bonds, giving prices another fillip. Analysts expect the bellwether Treasury bond, now yielding [illegible] settle at around 7.5% by mid- [illegible]easuries with shorter maturities [illegible] just over 7%. They could tum- [illegible] by the second quarter (chart).

Sure, Murphy's Law could demolish that neat arrangement. Last year was a good example. As 1990 got under way, many soothsayers forecast an economic slowdown and lower rates. But inflation anxieties exploded that idea for the first part of the year. After inflation talk died down, bonds began to perk up—until Saddam Hussein's August blitzkrieg into Kuwait sent oil soaring. But fall produced a Mideast sitzkrieg and growing signs that a recession finally was coming. The Fed at last reduced rates, and bonds took off. Shearson Lehman Brothers Inc.'s T-bond index has climbed 11.4% since late September.

WAR CLOUDS. The big question for early 1991 is: How would a war affect the bond market? The big fear is that oil shipments would be disrupted, sending oil prices—and inflation—skyward. The consensus in the investment community, though, is that war would only bring a temporary hiatus in the downward march of rates. "We don't think it's possible that the Saudi oil fields will be destroyed," given U. S. air superiority in the region, says A. Keith Brodkin, president of Massachusetts Financial Services Co., the mutual fund group.

On the flip side, peace isn't likely to bring quick prosperity and alter the rate-dropping trend, either. As Salomon Brothers Inc.'s weekly *Comments on Credit* put it on Dec. 14: "The economic harm done by proliferating job losses would overwhelm any positive fallout from any peace-related drop in oil prices."

The other overseas worry is that foreign investors, attracted by higher yields at home, won't buy enough U. S. bonds to sustain lower rates. By this baleful reasoning, rates would have to go up to attract the buyers needed to fund America's ever-expanding debt needs. Salomon Brothers projects a total $24 billion in foreign purchases of Treasuries for 1990, down from 1989's $30 billion. But many analysts believe interest rates may

own in Japan and Eu-
s growth slows, so for-
ıvestments in Treasur-
ould edge up in 1991.
e we'll see one more
of rate increases in
ny, but that will be the
says Thomas R. Rob-
Merrill's manager for
investment strategy.
ıortfall of foreign buy-
ely will be made up by
ean pension funds and
large domestic inves-
ıat in a recession are
g to the safety of gov-
ıt securities.

LONG. The classic ad-
ill applies: When you
ates will drop, go for
maturities, which enjoy bigger
ikes than short-term paper. By
's calculations, the 30-year long
hould garner a 19% total return in
s. the two-year T-bill's 8.2%. Even
re more interested in income than
gains, it's still wiser to lock in
rm Treasuries than to wait and
the yields drop.

t about people who need to cash
ir investments later in 1991 for a big-ticket purchase, such as a home, and who worry about a Mideast war-related rate spike? For them, the safest compromise is 5- and 10-year notes. Prices for intermediate Treasuries aren't as vulnerable as the long bond to rate surges.

Outside the government-guaranteed security of Treasuries, there are selective opportunities in corporate bonds. Investment-grade bonds boast yields that are an alluring 1.3 percentage points over comparable Treasuries. But in a recession, it pays to be careful, even with high-grade issues. The number of ratings downgrades is growing: Standard & Poor's Corp. lowered 538 companies in 1990's first three quarters, compared with 419 in all of 1989. "Avoid cyclical industries such as automobiles," says James K. Ho, a senior vice-president at John Hancock Mutual Life Insurance Co. "Quality has to be the name of the game."

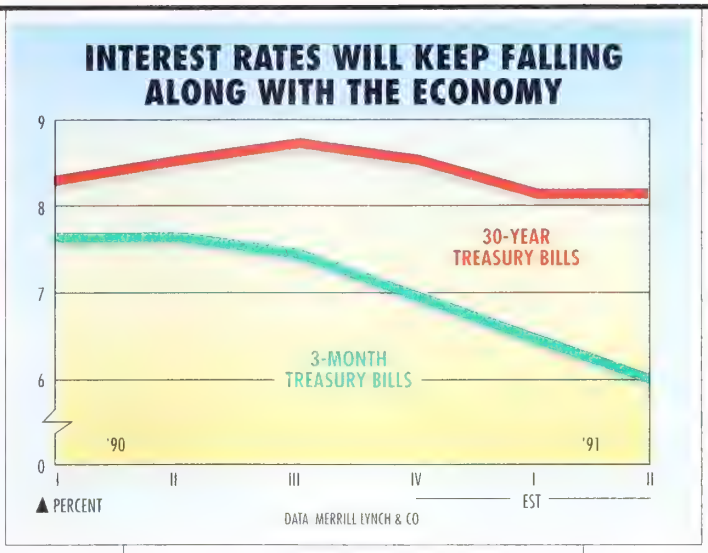
JUNK HUNT. The more adventuresome might try cherry-picking for junk bonds, which pay double-digit interest rates. The high return, of course, is available only at a price: high risk. The trick is to find junk that won't default in a recession, a daunting task (page 118).

Recent changes in the federal tax law, which hiked rates for some higher-income investors, have increased the allure of municipal bonds issued by state and local governments. Interest on munis is exempt from federal and often local taxes. Still, munis are far from risk-free. A discerning eye is needed here, too (page 120).

Want to do better than Treasuries and still avoid risk? Mortgage-backed bonds may be the answer. These securities pool individual mortgages guaranteed or insured by federal agencies. Government National Mortgage Assn. bonds, or Ginnie Maes, pay over a full percentage point more than Treasuries. However, the pools, usually slated to mature in 30 years, often pay off much earlier when lower rates prompt homeowners to refinance their mortgages. The same is true for companies and municipalities. When rates fall, they typically call their bonds. They pay them off before maturity and issue new debt at lower cost. Early payouts are a pox to bondholders, who count on a steady flow of high-yielding payments for years to come.

The high-stakes guessing game among bond traders is how deep the recession will be and when to prepare for a turnaround—by shifting to shorter-term securities, for example. "The economy is weaker than the Fed believes," argues Gary N. Coburn, head of fixed-income mutual funds for Putnam Cos. "So the Fed will continue to ease through 1991." Could be. Or there might be a mild recession ending by summer with a gradual recovery and incremental rate increases. Or a quick recovery and a sudden rate boost. Whatever, investors who buy bonds in recession years usually have a good shot at nailing down a handsome profit.

By Larry Light in New York



CAUTIOUSLY OPTIMISTIC— BUT EVEN BOND MEN GET THE WILLIES

EDWARD A. TABER III

etting where the bond market is headed amounts to more art than science. Ask Edward A. III, head of taxable-bond mutual for T. Rowe Price Associates whose scores and goofs during show how daunting the bond mar-an be even for the pros.

ear ago, with the economy slow-e figured quite reasonably that st rates were headed lower, so he big into longer maturities. Oops. opes were iced, literally and figu-ly. A blast of arctic weather d oil costs to jump and revived ion fears. Plus, Japan and Germa-atcheted up their rates. Says : "That was savage."

TION TIP. When Iraq invaded Ku-and rates surged, he was luckier, g shifting into short-term bonds l of time. The move wasn't owing ip from Saddam Hussein. Rather, was convinced by a stubborn rate of inflation. All in all, his funds (assets: $7.5 billion) had l results in 1990. Just one was in p 25% for its category and four in econd quartile, according to Lip-Analytical Securities Corp.

oer spends his days trying to di-the future from his office above

Baltimore's Inner Harbor. He believes this recession will be mild, followed by a robust recovery in 1991's second half. To Taber, short-term investment-grades will be good places to roost then. But he plans to eschew much riskier bets. "Why screw around?" he says. In the safety-first world of bond investing, why indeed?

By Larry Light in New York

"Ted and I fly on business about a zillion miles a year together. So I try to be careful not to 'one-up' him.

"But one day we compared brokerage accounts. He pays $80. My Schwab One® is free. He got a little tense."

"Why pay $80 for a brokerage account with checking when you can go first class free?"

As we fly, Ted and I share everything from family stories to investment strategies. One day we talked about our brokerage account.

I could see the knots in his brow when I told him my Schwab One account is free. He pays eighty bucks a year.

We compared.

Compare Schwab One to similar accounts.	Annual Fee	Initial Deposit Required	24-Hour Service	Commission Discounts
SchwabONE	**Free**	**$5,000**	**Yes**	**Yes**
Merrill Lynch Cash Mgmt Account	$80	$20,000	No	No
Dean Witter Active Assets Account	$80	$10,000	No	No
Shearson Lehman Financial Mgmt. Account	$100	$10,000	No	No

Based on a survey conducted by Charles Schwab & Co., Inc. in June, 1990

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FOR JUNK, THE NIGHTMARE IS FAR FROM OVER

More defaults are on the way, but careful scrutiny and a willingness to wait could still pay off

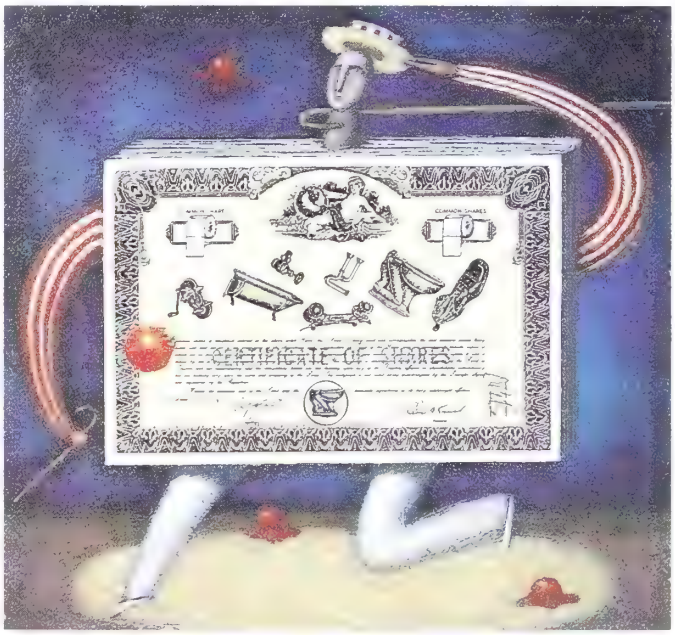
It was the year junk bonds lived up to their name. In 1990, Drexel Burnham Lambert Inc.'s bankruptcy, Michael R. Milken's fall from grace, a wave of defaults, and the sagging economy produced an almost catastrophic collapse in junk prices. Through the end of November, judged on total returns, the junk market lost almost 8% of its value. "By any measure, 1990 is the worst year on record for the high-yield market," says Joseph C. Bencivenga, high-yield research director at Salomon Brothers Inc.

What should you do if you're in a junk-bond mutual fund? And if you're not, should you buy into one? There are plenty of good reasons to stay away from junk—to sell your fund shares or, if you're not in junk now, to put your cash elsewhere. It might be 1992 before the junk market finally hits bottom and starts to rebound. But if you have a strong stomach and a taste for high risk, you might find a fund that could pay off handsomely over the long term.

For junk funds, 1991 is likely to be excruciating. The default rate could accelerate. Many companies that issued junk bonds in the mid-to-late 1980s will probably be unable to raise the huge amounts of cash necessary to continue meeting obligations to bondholders.

COMING DUE. Junk issuers likely to be most affected are those that have been paying interest in additional securities. In 1991, many of them will have to start paying in cash. Other issuers are required to raise the interest rates they pay if the price of their bonds declines. Many such companies will have to reset their junk rates over the next two years, and the market's sharp drop could force them to make much larger interest payments. Other companies' issues will mature soon, which means they'll have to refinance the bonds or shell out cash to redeem them.

Salomon's Bencivenga estimates that during 1991, junk issuers will have to pay $16 billion to bondholders to meet their obligations—a dramatic increase from 1990's $5 billion. He predicts that that will dip to $13 billion in 1992 and then soar to $37 billion during 1993 and 1994 combined. A lot of companies will probably not be able to raise the money.



Yet the news isn't as bad as it sounds. The junk market has been anticipating these trigger dates, and affected issues are already selling at deep discounts. In fact, the entire market has been so brutally battered by the relentless flow of bad news that some relatively healthy issues have been dragged down to unreasonable levels. Some could be poised for an upturn. But with so many mine fields, current and potential investors should scrupulously examine the performances of junk-bond funds (chart), whose 1990 slides ranged from –2.8% to –15.6%. Among the largest, only Fidelity, Vanguard and Putnam fell less than the market's average 8% drop in total return.

In addition to finding out where your fund ranks, you should scrutinize the quality of its portfolio. Some funds are reassuringly stocked with issues rated at least BB, a notch below investment grade. Stay away from funds skewed toward bonds rated CCC, just one rating above default.

Fidelity Investments is dealing with the quality problem by transforming its existing junk fund into the Capital Income Fund, which will specialize in workout situations. Designed for the adventurous, the fund will invest in the distressed tier of the junk-bond market as well as in other risky instruments such as illiquid bank loans, privately placed bonds, and bank debt. More risk-averse investors can choose a new fund called Spartan High Income which will stick to the top tier of the junk market.

Even the top tier is no place for the faint of heart. But if you like to live dangerously, do your homework and take a plunge. A lot of money has been made on Wall Street by jumping in as everyone else heads for the exits.

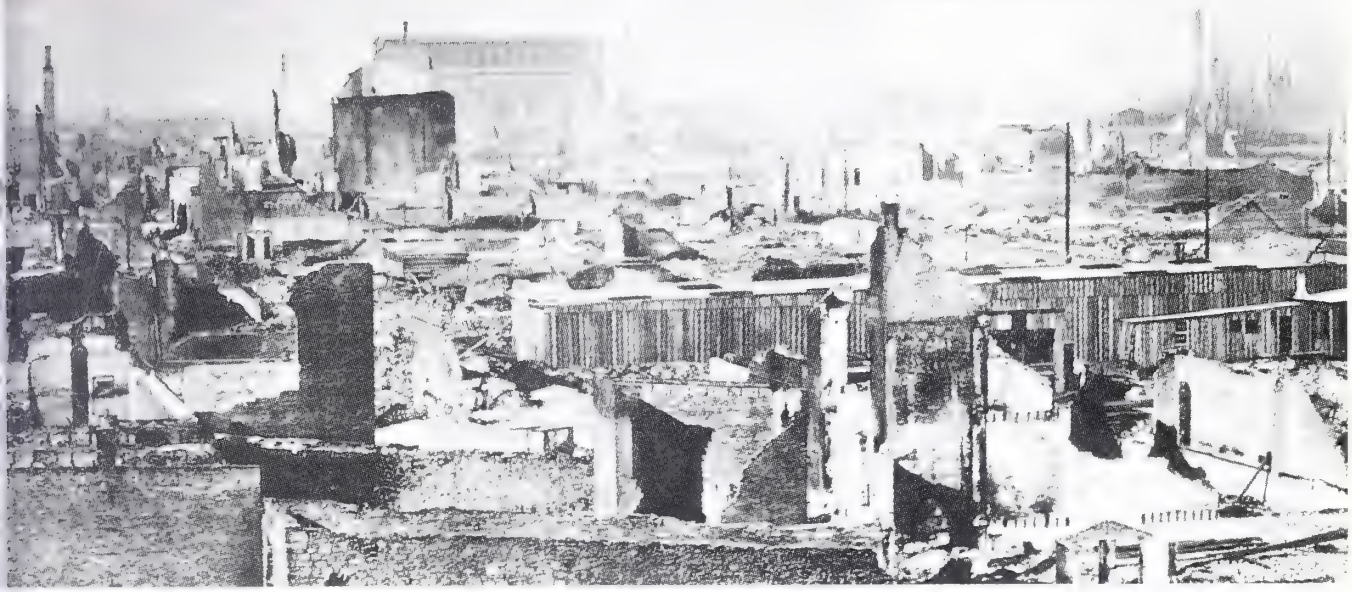
By Leah Nathans Spiro in New York

JUNK-FUND RETURNS: FROM POOR TO HORRENDOUS

Name	Net assets* Millions	Total returns 1988-1990**	1990**
Vanguard High-Yield	$715.6	9.55%	–5.31%
Fidelity High-Income	962.2	5.90	–2.81
T. Rowe Price High-Yield	741.0	4.00	–10.49
Putnam High-Yield	1534.5	3.50	–6.29
Prudential-Bache High-Yield B	1803.8	–0.07	–9.36
Kemper High-Yield	1186.6	–0.70	–12.21
IDS Extra Income	860.7	–3.31	–11.06
Franklin AGE High-Income	1415.6	–6.37	–14.75
First Investors Fund	835.6	–10.66	–15.66
United High-Income	778.9	–11.79	–14.24

*9/30/90 **Through 12/7/90 DATA: MORNINGSTAR, INC

Chicago Fire, October 11, 1871.



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Municipal Bonds

ONCE UPON A TIME, A MUNI WAS A MUNI WAS A MUNI . . .

But no more. Now, credit quality is crucial—so investors have more homework to do

Here's one prediction for 1991 that looks rock-solid: Your taxes will go up.

The federal government's recent budget package will rake in an extra $137 billion in income and excise taxes over the next five years. True, the top federal marginal tax rate is being lowered from 33% to 31% in 1991. But the erosion of itemized deduction and personal-exemption benefits imposes an effective tax rate of about 34% for an affluent family of four. The news is worse at the state and local level, where governments raised $8.6 billion in new taxes in fiscal 1990. Income taxes alone have gone up in 12 states, including New Jersey and Massachusetts.

Clearly, in such a taxing environment, demand for tax-exempt bonds will surge. Tax-exempts, better known as municipal bonds or munis, are debt obligations issued by city, state, and local governments. Interest income on munis is exempt from federal taxes, which makes them one of the best legitimate tax shelters around. The highest-quality 30-year munis currently yield around 6.9%—the taxable equivalent of a 10% return for those in the highest tax brackets. And since most states exempt their residents from local taxes on bonds issued within state borders, investors can easily earn even higher tax-equivalent yields (table). New York City recently sold 30-year bonds with an 8.75% coupon rate, which is the taxable equivalent of a 14% yield for well-heeled city dwellers.

But locking up these tax-free returns is no longer the lead-pipe cinch it used to be. "Credit quality"—Wall Streetese for the strength of the cash flow used to meet principal and interest payments—is becoming increasingly critical. By and large, safety-conscious investors are flocking to debt issues sold by states and cities that have sound balance sheets and diversified economies. But problems among weaker issuers are bound to crop up as the recession strains government finances. "Credit considerations are more important than they have been in years," says Dale Krieger, who heads Carnegie Hill Co., a money management firm.

> Muni issues are being downgraded at a rapid rate—and recession could worsen the bleak numbers

The most immediate risk to bondholders is a sudden decline in market value. That can happen if a rating agency downgrades an issue or the issuer is beset by negative publicity, as any owner of New York City, Philadelphia, or Massachusetts bonds can testify. Standard & Poor's Corp. has downgraded nearly three times as many muni issues as it upgraded in the first nine months of 1990. And those bleak numbers could worsen. Whenever the economy slumps, so do tax revenues. At the same time, expenditures for welfare, medicaid, and other entitlement programs rise sharply. About 25 states are already taking in less revenue than forecast, and the condition of an additional 10 states looks questionable, according to the National Association of State Legislatures.

'SLEEPLESS NIGHTS.' The market is beginning to pay attention. For most of 1990, long-term muni bonds were reasonably stable compared with long-term Treasuries (chart). Indeed, investor demand for tax shelter was so strong that the difference, or "spread," between yields on AAA-rated general-obligation bonds (GOs), which are guaranteed by municipalities, and BBB GOs narrowed to less than a quarter of a percentage point last April—the lowest in decades. That spread has more than tripled since then, as investor concern about the credit prospects of lesser-rated muni bonds has deepened. "Almost 1% more yield on riskier munis sounds nice, but is the differential worth some sleepless nights?" asks S. E. Canaday Jr., a vice-president at John Nuveen & Co., an investment firm that specializes in municipal bonds.

More dire than downgrades for bondholders is the risk of default. During the Great Depression, 4,782 issues—7% of the total market—defaulted, says Robert R. Godfrey, executive vice-president of MBIA Inc., an insurance company that specializes in underwriting muni bonds. Since then, he adds, state and local governments have rarely defaulted on their debt, especially their general-obligation bonds. GOs are often used to fund such

rojects as school construction. Interest nd principal payments on them are acked by municipalities' power to levy roperty taxes. But that is not an iron-lad protection. Philadelphia is currently oing through financial contortions to void defaulting on its GOs.

The risks are somewhat higher for so-alled revenue bonds, which account for ore than 60% of today's $830 billion uni market and about 70% of all new ax-exempt issues. Although they are is-ued by state and local governments, ese bonds are backed not by the gov-rnments' taxing power but by revenues enerated by public facilities. These tax-xempt bonds largely finance many es-ential community services, such as wa-er and sewer projects. But they have lso been used to raise money for such rivate-purpose activities as hospital con-truction, real estate development, and irline-terminal enhancements.

IDDEN DANGER. In essence, revenue unis are often corporate bonds mas-uerading as public securities. And like orporate bonds, they suffer when cash lows weaken. "As the economy deterio-ates, it is likely that there will be more efaults," says Harrison Goldin, the for-er New York City comptroller who ow heads his own financial-advisory irm. The most spectacular bust in the uni market involved revenue bonds: ew investors have forgotten the 1983 efault by Washington Public Power upply System on $2.25 billion in bonds old to finance the building of two nucle-r power plants.

For those of a conservative bent, di-ersification among quality general-obli-ation bonds and high-rated revenue onds lessens the chance that a default r ratings downgrade will hammer a ortfolio's market value. And to many nvestors, that means mutual funds. ust six years ago, some 60 muni-bond unds managed only $13.2 billion in as-ets. In October, 1990, 190 funds were nvesting $68.7 billion, according to the nvestment Company Institute. Unit rusts, which are unmanaged portfolios f diversified bonds, are popular, too. gain, check the credit ratings of the ecurities that make up the trust.

You can further bolster the security f your mutual fund, unit trust, or indi-idual holdings by purchasing bonds acked by one of the insurance compa-ies that specialize in this market, such s MBIA, Financial Guarantee Insur-nce, or Ambac Indemnity. They guar-ntee timely payments of both princi-al and interest on bonds in case of lefault. Muni-bond insurers now cover bout 26% of the new-issue market, nd the insurance slices 10 to 15 basis oints off your yield. (One basis point s one one-hundredth of a percent.)

Safety-conscious investors could also look into "pre-refunded" muni bonds. These are bonds that were issued when interest rates were high. To take advantage of lower rates without violating bond covenants, an issuer will often sell new bonds, use the proceeds to buy a basket of Treasury securities, and take the cash flow from the Treasuries to pay the interest on the original bonds. The arrangement saves the issuer money while removing the risk of default for the investor. And the yield on pre-refunded debt is competitive with general-obligation bonds. Piedmont Power Municipal Agency's pre-refunded debt could be bought on Dec. 18 to yield 6.05%, says Carnegie Hill's Krieger. New Jersey's AAA-rated GOs of comparable maturity were being offered to yield 5.95% on that day.

A step down the quality ladder are single-state muni-bond funds. These funds confine their portfolios to a state's border in order to lower the tax bite even further for resident investors. But the price of more shelter is less diversification. And some funds are unwilling to buy excessively risky issues just to preserve a fund's exemption from state taxes. Fidelity Investments, for example, recently bought creditworthy out-of-state issues for two of its single-state, short-term muni funds rather than load up on lower-quality in-state debt. So its investors will end up with slightly smaller tax savings.

Of course, higher yields among financially stressed muni-bond issuers could spell opportunity for those of a more speculative bent. The typical long-term debt of a fiscally sound state yields around 6.8%. That's substantially below the roughly 8% return of long-term Massachusetts debt and the approximately 7.5% yield on New York State's. If these two states' economies turn around, their bond issues could rebound sharply.

Even farther out on the risk spectrum are industrial-development bonds and other revenue bonds that essentially finance private activities. Take the airport special-revenue bonds favored by Howard D. Sitzer, who heads muni-bond research at Greenwich Money Management Inc. Chicago's O'Hare International Airport, for example, sold special-facility revenue bonds on behalf of United Airlines Inc. and backed by UAL's revenues. United used its proceeds to build a new terminal at O'Hare and construct a maintenance hangar and cargo facility. The bonds trade around par and yield about 8%.

AILING HOSPITALS. By contrast, says Sitzer, the public debt that was issued on behalf of Continental Airlines Inc. for facilities at the Newark, Cleveland, and Houston airports has been hammered since the carrier filed for Chapter 11 protection. New Jersey Economic Development Authority bonds, which had a 9.5% coupon and are backed by Continental's revenues, now trade at $590 for every $1,000 of face value. Hospital tax-exempt securities have plummeted in value, too, as the health care industry copes with declining admissions and fierce competition for doctors and patients. Many hospitals are showing large operating losses as government, business, and other payers squeeze down hard on charges. Such bonds can be treacherous for the unsophisticated investor.

Municipal bonds may be one of the last great tax shelters left in America, but they're not as easy to pick as they used to be. These days, dancing out of the taxman's reach takes some careful footwork indeed.

By Christopher Farrell in New York

MUNIS: A GOOD WAY TO BEAT NEW TAX HIKES

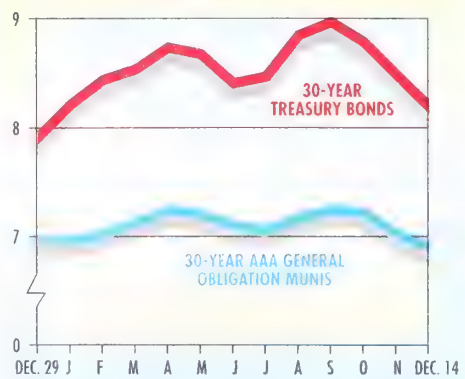
	MUNICIPAL BOND YIELDS OF 6.0%	7.0%	8.0%
	PAY INVESTORS A TAX-EQUIVALENT YIELD OF:		
ALABAMA	9.4%	10.9%	12.5%
CALIFORNIA	10.1	11.7	13.4
CONNECTICUT	10.9	12.7	14.5
ILLINOIS*	9.1	10.6	12.1
MASSACHUSETTS	10.5	12.3	14.0
MINNESOTA	9.8	11.5	13.1
MONTANA	10.3	12.1	13.8
NEW MEXICO	9.9	11.6	13.2
NEW YORK	9.8	11.5	13.1
NORTH DAKOTA	10.5	12.3	14.0
WISCONSIN	9.7	11.3	12.9

*Yield depends on the issue since Illinois doesn't exempt all issues from state income taxes

NOTE: Yields assume taxpayers pay the top 31% federal income tax rate plus applicable state tax rates

DATA: PRUDENTIAL-BACHE SECURITIES

LONG-TERM MUNIS HAVE BEEN LESS VOLATILE THAN TREASURIES



▲ AVERAGE MONTHLY YIELD

DATA: MERRILL LYNCH & CO.

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THE FUTURES MARKET IS LOOKING LIKE A HILL OF BEANS

From corn to cocoa, commodities prices are down. But the outbreak of war could change that

Commodities traders are stuck in a tar pit. Even the White House's Dec. 12 decision to send $1 billion in grain credits to the Soviet Union isn't expected to move grain prices up. Oil is halfway down the ladder climbed after Iraq's Aug. 2 invasion of Kuwait and could fall dramatically if the Middle East turmoil calms. Across the futures markets, from lumber to cotton to corn, a picture is emerging of sluggish economic activity combined with big supplies that can only mean one thing—low commodities prices in 1991.

Oil is likely to head lower. As an increasing number of traders grow convinced that war will not break out, oil is leaning toward the $20-per-barrel level where it traded before Saddam Hussein's move. With OPEC-wide production in December reaching a 12-month high of 24 million barrels a day, even without contributions from Iraq and Kuwait, oil could fall as low as $10 if the Iraq impasse is resolved. "There's potential for a bloodbath on the downside," says Andrew LeBow, oil analyst for E. D. & F. Man International Securities Corp., a New York-based firm.

COPPER WATCH. War, of course, would change all that. Concern about possible gunfire sometime before the Jan. 15 U. N. deadline has kept oil prices suspended at around $26 a barrel. If there is a war, look for oil to jump as high as $50 a barrel and then settle into a trading range above $40, analysts say, even though they expect Saudi Arabia, the United Arab Emirates, and Venezuela to maintain a healthy flow of crude.

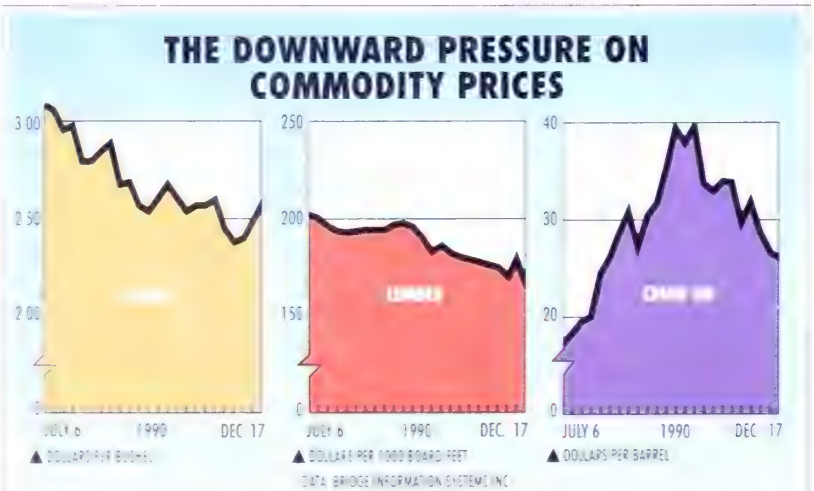
For industrial commodities to switch directions, the economy will have to reverse direction—and sharply. Lumber, which tumbled to about $160 per 1,000 board feet from above $200 in July, shows few signs of improvement as homebuilding continues to decline. Inventories remain high, and some lumber mills have extended their traditional holiday shutdowns. Copper, another key industrial commodity, might move somewhat more quickly. Although worldwide inventories are nearly 20% higher than last year, domestic supplies are slightly lower, and copper prices may be poised for a recovery from the current level of about $1.09 per pound if industrial activity increases.

The grain markets are fighting the same problems of oversupply and low demand. And traders aren't lookin to Bush's promised $1 billion in ag cultural credits to the Soviet Uni for much help. The credits we smaller than many analysts expe ed, and they're not even enough enable the Soviets to meet preexi ing commitments to buy U. S. gra "The embargo is still on, just in reduced form," contends Dan Basse, director of market resear for AgResource of Chicago.

HEFTY HARVEST. The domestic sce is no brighter. Bumper crops ha boosted supplies to near-historic le els even as growing production ov seas further reduces U. S. export o portunities. The breakdown of tal aimed at a new General Agreeme on Tariffs & Trade (GATT) raises t prospect of a trade war in whi grain prices would be a major victi

The hardest-hit grain of 199 wheat, shows little likelihood of i provement next year from the 13-ye low it reached in mid-November. Reco wheat production at home and abro dampens the chances of seeing whe rise much above its current $2.60 a bus el any time soon. Corn is the commodi most likely to improve from the Sov grain deal, but there's no other maj cause to hope corn will move mu above its current range of about $2.38 bushel. And lower oil prices would duce demand for corn used to make t ethanol gasoline substitute. Soybean which had rallied above $6 recently rumors that Bush's S viet grain packa would be as big as billion, have fallen bac But beans still have bullish outlook amo the grains because th are in relatively sho supply. Still, if tra frictions develop wi Europe after the GA breakdown, soybean would be the gra hardest hit by Europ an sanctions.

Other agricultur commodities rema down, as well. Oran juice prices, which we



VISION

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James P. Comer, M.D.

Turning symbols of despair into models of hope, James P. Comer has helped produce exemplary results in the difficult environment of urban public education.

Poor children often fail academically because they don't develop social mainstream skills and schools are not prepared to help, Dr. Comer says. He developed the Comer Process at the Yale Child Study Center to reverse the trend. The program refocuses teacher training, provides mental health guidance and implements parent-school partnerships—all to build children's confidence and competence.

The 42 public schools in New Haven, Connecticut, use his methods, as do more than 100 others in eight states. The results: a better learning climate, dramatically reduced behavioral problems and climbing achievement levels.

Clark Kerr

Clark Kerr was a major force in the transformation of American higher education after World War II.

Dr. Kerr recognized, long before the need, the emerging educational requirements of a booming California population and a rapidly changing society. As president of the University of California from 1958-1967, Dr. Kerr created a system renowned for intellectual excellence, pioneering research and quality education at reasonable cost. Today, more than 160,000 students at the university's nine campuses are nurtured by this environment.

Great achievements cannot be attributed easily to any individual, but behind the University of California are the intelligence, resourcefulness and vision of Clark Kerr.

Dr. Richard C. Wallace, Jr.

Richard C. Wallace restored public confidence in Pittsburgh's public schools during the 1980s by building alliances with business and teachers, and starting programs that had a strong impact on student achievement and the dropout rate.

Under the umbrella of the Excellence Program, Pittsburgh schools monitor student achievement and teacher effectiveness through systematic planning, instruction and testing. Teachers grow through mentoring and staff-evaluation programs that serve as a beacon for other school systems. Nationally acclaimed magnet schools and other special programs attract students who once fled to private schools.

As superintendent of schools, Dr. Wallace has infused the community with faith in local schools and reliance on the efficacy of educational reform.

For more information, write to The Harold W. McGraw, Jr. Prize in Education, McGraw-Hill, Inc., 1221 Avenue of the Americas, New York, NY 10020.

A 'ROUND PEG' SQUARELY FOCUSED ON OIL FUTURES

MICHAEL C. WILNER

Michael C. Wilner has some dangerous hobbies. He's a white-water kayaker, an avid rock climber, and he took up hang gliding this year. Wilner's job also involves a fair share of risk-taking: He trades oil futures.

Wilner, 35, is co-founder of Hilltop Trading Co., one of the largest independent commodity brokers on the New York Mercantile Exchange. In just three years, he and partner Daniel Uslander, also 35, have built a formidable trading firm, with 20 employees and $2 million a year in gross commissions. In the controlled mayhem of the futures pit, they operate from four stations—tiny counters stacked with telephones—and they are constantly scurrying to place orders in all forms of energy futures: crude, natural gas, heating oil, gasoline, and propane, as well as futures options. Wilner, who calls himself "a round peg" who doesn't fit into conventional professions, says he has been successful for the same reason he's good at action sports: He thrives on activities that test his mettle. "I know what I'm about," he says.

PERSONAL TOUCHES. Things weren't always so clear. This "new age" trader, who collects antiques and pre-Raphaelite art, started out studying English and chemistry—with the aim of becoming a bookbinder. Then he went to law school but dropped out when a friend convinced him that his personality better fit the rough-and-tumble world of commodities trading.

Wilner has worked on the NYMEX floor since 1981 as both broker and trader. While toiling there, he got to know Uslander, and the two started Hilltop—offering companies and speculators the individual attention they often didn't get from bigger firms. For one thing, he notes, "we're terribly specialized. The only thing Hilltop does is energy futures and options." Then there's the fact that clients speak directly to the floor traders rather than placing orders through an intermediary, as often happens in big houses. Some clients even see fit to give Wilner the discretion to use his expertise about when to execute their orders. From the start, the Hilltop approach paid off. It took only four months to repay the $300,000 the duo had borrowed to start the firm.

In normal times, the pit is crazy enough. But since Iraq's invasion of Kuwait, with prices moving dramatically on every hint of war or peace, the stress has been tremendous—with the added volatility increasing Hilltop's own risk exposure, since any mistake could be more costly than usual to rectify. Still, Wilner found time to do some personal trading, which generally provides about 30% of his income. He's not a big speculator—executing perhaps 40 personal trades a day—but he's seen some interesting times. On his best day, he has netted $22,000. On the other hand, one day he lost $51,000.

Wilner declines to reveal his bottom line, but it's clear from his lavish life-

style that he does all right. He owns lofts in the fashionable SoHo section of Manhattan and in London, plus a Vermont farm and a house in southern Spain. He's even thinking of retiring in another year. Wilner plans to sell his stake to his employees, then move to Vermont and take time off with his family. His wife, Penelope Wurr, is a glass artist whose work appeared in the movie *Batman*. And the couple has a 16-month-old son, Tammas. After a year off, Wilner intends to find a new profession. He isn't sure what that will be. But it's a safe bet that whatever he does will involve some risky business.

By Robert Buderi in New York

from a record high last year because a major freeze to as low as 99¢ a pou late this year because of a record cr showed signs of life in mid-Novembe Then, rumors of a big Brazilian cr pushed them back down to around $1. per pound, where analysts expect the to stay unless there's another big freez Sugar had traded at depressed leve during most of 1990 because of low d mand overseas, but good news about S viet purchases and poor weather in Cu improved the outlook slightly for a mo above the current 97.5¢ per pound. C coa's outlook remains poor.

Even cotton, which has reached i lowest supply levels in 30 years ar faces continuing demand from Chin has been unable to sustain a rally b cause of expectations that cotton sal would suffer if the economy weaken "The market's got a prove-it-to-me att tude right now," explains Shearson Le man Brothers Inc. analyst Sandra Kau Still, with a cotton inventory of less tha two months' supply, Kaul expects to se prices rise above current levels of abou 76¢ per pound.

HOLD ON HOGS. Even beef and pork which traded in a bull market for mos of 1990, may be ready to slow down "There's been a very, very strong, ag gressive demand for beef," says Jerr Abbenhaus, analyst with A. G. Edward & Sons Inc. of St. Louis. "When you'r at or near all-time record highs, it's pret ty hard to say it's going to keep goin up." Still, demand for cattle from Japa and continuing low rates of slaughte are factors that convince many trader that the price will keep climbing abov live cattle's recent range of about 78 per pound. Pork belly stocks are at thei lowest levels in more than a decade, a factor pushing belly prices up to aroun 67¢. And farmers are holding back thei hogs for breeding purposes—both bull ish factors for pork prices. Still, pork and beef are the exceptions to the gener al doldrums.

The war factor remains the bigges unknown for the economy, but one tha could bring higher prices to the commod ities markets. If war breaks out, the in flation that would result would boost commodities prices along with the prices of most consumer goods. Peace would mean a relatively quick end to the reces sion. "Assuming events in the Persian Gulf do not get out of hand, the reces sion of 1990-91 will be the mildest of the postwar era," claims University of Chi cago economist Michael L. Mussa. Per haps, but for commodities markets mired in bearish sentiment, even a mild recession will spell down times in the pits.

By David Greising in Chicago

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TIME IS NO LONGER OF THE ESSENCE WITH THESE NEW OPTIONS

To weather lean times, exchanges try to entice investors with low-cost, long-term instruments

With the economy in recession and tumbleweeds rolling down Wall Street, the time hardly seems ripe to launch a brand-new investment product. Make that a stock option—a tough sell in the best of times—and the challenge stiffens. But exchanges and brokerage firms hope investors will forget the unhappy present and bravely look ahead to the future—the distant future—by investing in long-term options.

Variations on such instruments have long been available to professionals, but only lately have they arrived for the small fry, as a low-cost way to bet on the market without committing a lot of cash. There are long-term options wagering on the future prospects of American Telephone & Telegraph Co., the Nikkei Stock Average of Japan, or the Major Market Index of 20 large-capitalization U.S. stocks. For Wall Street, these new options are conjuring up fond memories of the mid-1980s, when investors were snapping up such "derivative" instruments hand over fist. "We're just starting to tap the demand for a long-term options product," asserts Ivers Riley, head of derivative products at the American Stock Exchange.

Unlike short-term options, which expire in three months or less, long-term options reduce the importance of time in the investment calculation. The Philip Morris Cos. long-term options traded on the Amex, for example, won't expire until September, 1992. But the "strike" price—the price at which the holder of a "call" option can buy the stock or the owner of a "put" can sell—is set quite far away from the stock's current price. The stock of Philip Morris, now trading around its 12-month high of $50, would have to rise to $60 (for the call) or fall to $40 (for the put) to hit either strike price. The need for big price swings replaces time pressure as the long-term option buyer's primary concern. A long-term Amex-traded option on 100 shares of Philip Morris, expiring in September 1992, with a strike price of $60, costs $538. Accordingly, if Philip Morris stock rises to $100 any time before expiration the option would rise nearly eightfold.

Investors are not exactly jamming phone lines to buy these options. The Chicago Board Options Exchange (CBOE) has traded its LEAPS since early October but daily volume remains below 500 contracts for the 14 LEAPS listed by the exchange. The Amex hasn't done much better. But there is a sign of hope. The daily number of contracts outstanding has climbed steadily at both exchanges, topping 14,000 contracts at the CBOE and nearing 12,000 at the Amex.

'BIG DIFFERENCE.' Retail brokers are starting to warm to the concept. A. G. Edwards & Sons Inc. in St. Louis, which handles individual investors almost exclusively, has been an early, though cautious, LEAPS-pusher. "It's not the kind of thing that we're going to say: 'Oh, don't buy stocks and bonds, buy these instead,' " explains Peter Biebel, Edwards' equity-options strategist. "But it gives people something with a little longer time frame, and a little more efficiency price-wise, than normal options." Adds Tom Bond, a floor trader at the CBOE: "With LEAPS, investors don't have to be right tomorrow. The extra time makes a big difference."

For folks who seek to speculate on broader price movements than those of individual stocks, the CBOE and the Amex also are listing long-term options on a variety of stock indexes. The CBOE has one for the Standard & Poor's 100-stock index, while the Amex obliges with a long-term wager on the Major Market Index, whose 20 stocks closely track the Dow Jones industrial average. The Amex even trades warrants on indexes of foreign stocks such as Japan's Nikkei 225 and London's Financial Times Stock Exchange 100.

Conventional index options have withered since the 1987 crash. Now, exchanges are hoping investors will take a deep breath and jump back into them, if they know

SOME TEMPTING LONG-TERM PLAYS

Option	Expiration	At recent prices of the option, investors profit if...
AT&T LONG-TERM EQUITY ANTICIPATIONS (LEAPS)	7/92	AT&T rises above $41.83
OEX LEAPS	12/92	S&P 100 index rises above 360
SALOMON BROS. NIKKEI 225 WARRANTS	4/93	Nikkei moves above 28,741
LT-20 OPTIONS	12/92	Major Market Index falls below 582

DATA: BW

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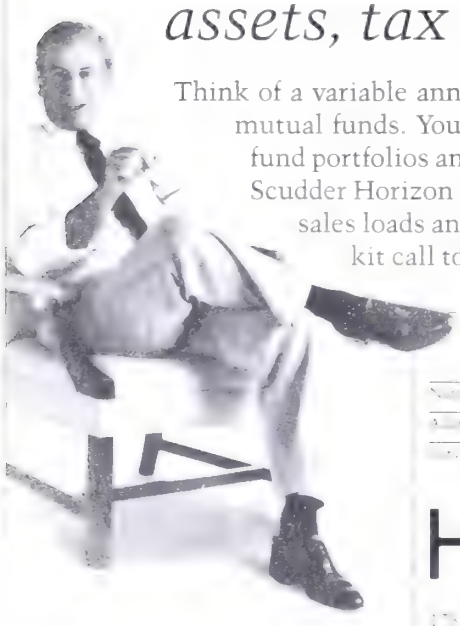

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Options

they have up to three years to let their money run. To make options on domestic stock indexes affordable, exchanges have even reduced the size of the options—to 1/20 of the value of the Amex's Major Market Index and 1/10 the value of the CBOE's S&P 100, commonly referred to by its trading symbol OEX.

The downsizing enables even widows and orphans to use the options to protect tiny portfolios against radical price swings. With the CBOE's OEX LEAPS, an investor can protect a $3,000 portfolio against falling more than $510 by paying $175 up front. But, in the event the mar-

The options aren't selling like hotcakes. But the number of contracts is climbing daily on the CBOE and the Amex

ket climbs, the $175 would be wasted.

Warrants on foreign stocks are also tempting. Even at prices as high as $17 for the Nikkei calls (they were as low as $3.62 early in the year), such warrants are well within the buying power of small investors. Long-term warrants on the stock indexes of Tokyo, London, Paris—and soon Frankfurt—expire in 1993 and are like long-term options.

One drawback: Because foreign indexes are priced in foreign currencies but pay off in dollars, such warrants ask the investor to bet on currency changes as well as the direction of a foreign stock market. Still, the Nikkei's put options are a hedge against further drops in the Tokyo market. That's useful for investors in stocks and mutual funds with stakes in Far East stocks. The collapse of the Tokyo Stock Exchange caused long-term put warrants to rise from $7.50 early in 1990 to as high as $50.

There is another risk to foreign-bourse warrants if you hold them to expiration. Even though they are traded on the Amex, most foreign-index warrants are issued by private firms such as Bankers Trust Co. of New York and Salomon Brothers Inc. Investors must depend on those firms to meet their commitments. In many cases, the firms have left themselves an escape hatch, reducing their obligations to investors in the event of a market crash, war, earthquake, or other act of God or Saddam Hussein.

For the exchanges, these options are a no-lose proposition. Still, they will be a smashing success only if investors decide long-term options are solid investments and not merely LEAPS of faith.

By David Greising in Chicago

BEST

of the "Best"

When 1990 MediaGuide compiled nominations for "The Best Stories and Columns of 1989," there were 13 Insight cover stories on the list. Four made the final cut, more than from all other magazine finalists.

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Business Week	3
Fortune	2
National Journal	2
Time	1
Forbes	1
New York Times Magazine	1
New York	1
The National Interest	1
Foreign Affairs	1
New York Review of Books	1
Financial World	1

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Insight
on the news

WHAT TO DO WHEN THE ROOF FALLS IN

'Don't sell' is the big down-market tip. But there are ways to make money

The great real estate dinner party of the 1980s has turned into a wake. What with wilting home values and huge office vacancies, real estate investing lately requires a keen sense of where danger lies. That and a lot of patience, because the days of quick in-and-out profits are gone. Says John J. Preotle, a managing director at Dean Witter Realty Inc.: "1991 will be so bad that I can't predict a bottom."

How did things get so awful? In the housing sector, it is basically a collision of demographics and economics. The gargantuan baby-boom generation came of home-buying age and bid up home prices outrageously. The surge was most acute in the Northeast and California, with prices more than doubling in 10 years. Now, the boomers have their houses. New demand is left to the smaller baby-bust cohort. The current recession is shrinking demand still further: It has halted spiraling prices and, in some areas, even pulled them down. But prices still are too high for many young buyers. Banks, leery of defaults in a downturn, often want 25% down, an impossible hurdle for many.

For sellers, the current market is a nightmare. In California, the inventory of unsold homes has tripled over the past year, to 13,000. More remarkable still, California prices are slipping—down 5%, to $192,000, for the average single-family home—an unheard-of event. Even during the 1981-82 recession, the state's population growth kept prices climbing.

Nationally, prices on average will edge up, thanks to markets that are still firm in some parts of the country. But the increase will be below inflation (chart). The areas that are doing fine are caught in a time warp. Winners are the Pacific Northwest, where the aircraft industry is humming, and the Midwest, which didn't overheat during the 1980s and thus seems immune from a harsh correction now.

How does a seller survive in a down market? The best advice is don't sell. If you are forced into a job-related move, consider renting out your house and waiting for a better day to unload it. But there is one problem: insufficient cash flow. Consider the plight of Harry Jenner, who left Fort Lee, N. J., for a sales manager's position at a new company in Toledo. The monthly carrying cost of his two-bedroom home in Fort Lee is $2,000, but he can get only $1,300 rent.

Another good tip for sellers is getting an appraisal before putting out the for-sale sign. That yields a more realistic view of marketability. "What houses are worth in any given neighborhood is like a patchwork quilt," says Robert W. Murphy Jr., president of Lender's Service Inc., a large Pittsburgh appraisal firm. "In a down market, the picture is even less clear."

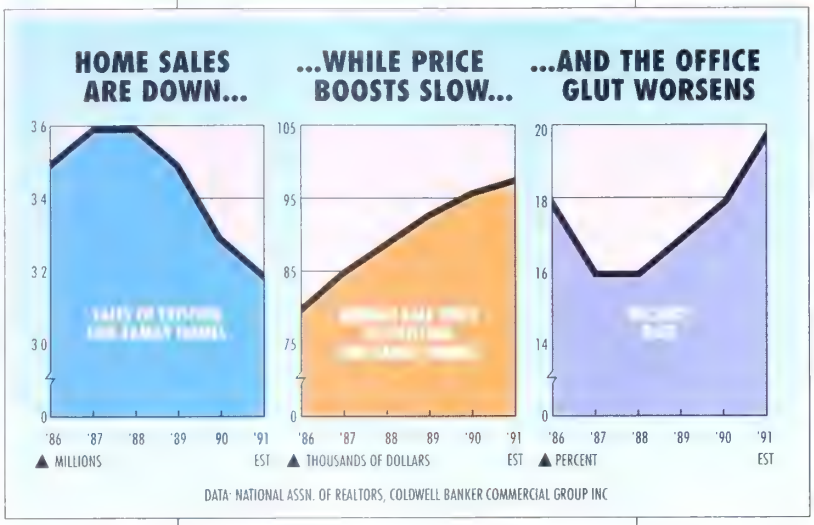
In the current sluggish sales environment, auctions are increasingly popular. Developer Donald Trump, looking for cash to keep bank lenders happy, has turned to Lange Financial Corp., a large Newport Beach (Calif.) auction house which on Dec. 16 sold 35 empty Trump condominiums in West Palm Beach, Fla. Auctioneers' fees run around 10% of the sales price, compared with a broker's standard commission of 6%. But they increase the chances that your home will be sold, although perhaps not at the price you would like.

ABANDON SHIP? Amid sagging property values, many homeowners are tempted to abandon their mortgage and their house when the dwelling's market value falls below the loan amount. Letting the bank take over the house seems easy. But it isn't smart. In some states, if the bank loses money selling the house after the foreclosure, it can sue the deadbeat borrower for the difference between income from the sale and the higher mortgage amount. Also, the Internal Revenue Service counts the difference as taxable income to the borrower. Even worse, points out Bernard F. McGovern, a Flushing (N. Y.) rea

estate lawyer: "Your credit is ruined."

The recession is bringing one piece of good news: Mortgage rates are falling, which eventually may help pep up sales. Nationally, rates for a 30-year conventional mortgage are 9.8%, down from 10.4% at midyear 1990. Some forecasts see rates dipping to 9% by summer. Declining interest rates also buoy homeowners with adjustable-rate mortgages, whose payments will drop.

Sinking mortgage rates may allow you to cut your payments by refinancing your mortgage. The rule of thumb is that, to make it worthwhile, rates should drop two percentage points below what you are paying. The downside is the extra charges involved in making the switch: legal fees, title searches, appraisals. Plus, there are the so-called points you pay the lender. They generally run 2% to 3% of the loan. For refinancing to make sense, the homeowner should plan to keep the property for at least two years.



DATA: NATIONAL ASSN. OF REALTORS, COLDWELL BANKER COMMERCIAL GROUP INC

Investors in commercial real estate will need to wait that long at a minimum before the outlook brightens. The inventory of vacant office space—expected to climb from 18% in 1990 to 20% in 1991—is the misbegotten result of grand optimism and not-so-grand tax breaks. The tax breaks, yanked in 1986, allowed write-offs for losses from the empty buildings. As the economy soured, so did hopes of getting tenants to fill them. Says Arthur J. Mirante II, chief executive of Cushman & Wakefield Inc., a large real estate firm: "Lower interest rates alone couldn't create enough demand to fill the vacant space."

Moribund markets, of course, can be perfect for making good, cheap deals. Bargain hunters are focusing on real estate in the Southwest, which sank badly in the mid-'80s because of the oil bust. The scuttlebutt is that a turnaround is in the wings. British Petroleum Co., for instance, plans a 20-story office building in Houston, where the vacancy rate is a staggering 23%. Nationally, one reason the vacancy headache eventually will disappear is that few new projects are under way. "We don't need to build anything," says Roger L. Johnson, real estate chief at accounting firm KPMG Peat Marwick.

Promising commercial investment opportunities range beyond the office sector. Industrial real estate is doing fine, particularly warehouses in cities heavily involved in foreign trade. Warehouses weren't overbuilt in the '80s.

Real estate investment trusts are getting a lot of attention lately. Many of these publicly traded investment vehicles, which either hold mortgages or own property outright, are posting strong returns, thanks to their conservative portfolios. Among the most attractive REITs is New Plan Realty Trust. Thanks to wise investments in thriving shopping centers and apartment buildings, the company boosted reported earnings per share in its recently completed fiscal year from 95¢ to $1.01.

DOING GOOD. Here's another savvy play. The tax code permits investors to do well by doing good through investments in low-income housing. You can get a maximum annual tax credit of $7,700—deducted directly from your tax bill—for a $55,000 investment in a 10-year limited partnership set up for low-income housing. At the end of that time, the properties in the portfolio are sold and you get your principal back. The reward, though, is entirely in the tax breaks. "These kinds of properties don't appreciate much, so don't expect to double your money," warns J. Michael Fried, head of Reliance Capital Corp., which syndicates the partnerships.

Making a million with nothing down may be only a dream these days, but imaginative and resourceful investors should not be discouraged. "Make the right investment in a down market, and you can make a fortune when it turns up," says Richard B. Stern, executive vice-president of the Real Estate Research Center in Chicago. In a bleak season, those are reassuring words.

By Larry Light in New York

CHART BY RAY VELLA/BW

The Art Market

Funereal mood: Sotheby's Marion fails to stir interest in Modigliani's Portrait of Morgan Russell

YOU MIGHT SAY ART IS GOING THROUGH A BLUE PERIOD

The buying frenzy of the '80s is over—but that's not necessarily bad news for collectors

Thinking about investing in art? Before spending any money in 1991, you'd do well to ponder the Nov. 12 sale of Henry Ford II's estate.

Amid increasing signs of market weakness, a wary standing-room-only crowd packed Sotheby's huge New York salesroom. As each of the 35 Impressionist and Modern paintings up for sale spiraled into view, Sotheby's Chairman John L. Marion tried valiantly to coax bids from attendees. But long before the sale ended, the room was half empty and the mood had turned funereal. Thirteen lots failed to sell—including Modigliani's marvelous *Portrait of Morgan Russell*, the most valuable piece in the estate, and works by Picasso, Vuillard, and other masters. Nearly as bad, 14 lots fetched prices beneath their low estimate. Only two sold above their high

Ford's heirs still did well, thank you, largely because Ford had bought the works years before. A Cézanne landscape he purchased in 1966 for $350,000 ($1.4 million in today's dollars) brought $7.15 million, for example. Better yet, the estate's attorneys had taken a precaution against a softening market: In negotiating the sale, they squeezed Sotheby's to guarantee the results—at a level rumored to top $51 million. It was the venerable auction house, with visions of last spring dancing in its head—a van Gogh portrait then fetched $82.5 million, and a Renoir scene pulled $78 million—that misread the market. When Marion brought down his gavel on the last lot, the take was only $30.4 million. Sotheby's was the reluctant owner of 13 paintings—"burnt" works, in art jargon, because their failure to sell publicly may spell trouble in finding buyers privately.

Of course, Sotheby's hasn't necessarily lost money—yet. But its bet on the

> In two key weeks this fall, Sotheby's and Christie's took in $355.6 million. Last year, the take was $910.9 million

Ford sale graphically illustrates a key peril of investing in art: the lack of liquidity, especially in the short term and in volatile markets. It's a drawback many investors chose to ignore in recent years, as art prices soared, the market broadened, and virtually anything that went on the auction block drew fast and furious bids.

WINDOW SHOPPERS. No question, that era is gone with the '80s—swept away by recession worries and the fear of war in the Mideast. During the two weeks in November when the auctioneers hold their biggest, most important sales in New York, Sotheby's and Christie's together took in $355.6 million this year vs. presale estimates of $484.5 million to $635.6 million. A year ago, the comparable two-week total amounted to $910.5 million. Blame the market shrinkage, which has prompted both auction houses to cut staff, on both sinking prices (chart) and fewer actual sales.

The picture appears to be the same in the art galleries, where many dealers concede that sales are sluggish. At the huge Los Angeles contemporary ar

ow in early December, "it's quiet- this year than last," said Marion cks, a Philadelphia dealer whose ventory includes works by Willem Kooning and Louise Nevelson. s Angeles dealer Manny Silver- an believes the number of items ld at the fair was down by 50%. 've had a lot of lookers, but peo- e are a little more reluctant to end immediately," he says.

What does all this mean for in- stors? That depends on how long u're willing to wait. In recent ars, some art buyers turned spec- cular profits by "flipping" rks—reselling them within a few ars, or even months, of their pur- ase, usually in a different locale. ıe market is now penalizing such eculators. At Christie's in London early December, one of Monet's lebrated haystack paintings iled to sell, despite its rarity at ction, after a newspaper reported at it had been purchased in ance for half the estimate a mere months earlier. A van Gogh inting purchased two years ago in ew York met the same fate.

BUYER'S MARKET. The future looks ighter, though, for those interested in e long term. "It's a wonderful time to y," says Jennifer J. Vorbach, a con- mporary art expert at Citibank's Art lvisory Service. "The market belongs collectors again." Sotheby's is inad- rtently providing more evidence that e art arena has turned into a buyer's arket: For the time being, it's hanging to the Ford paintings. "We will put em away until we can get prices in line th what we think their value is," says nior Vice-President David Nash, head its fine-art division. "The market is t ready to bounce back yet."

Before taking the plunge, though, yers should be aware that, more than er, the art market is stratifying. Some tegories that did not witness a great al of speculation—such as Old Master intings, Oriental and African art, nuscripts, antiquities, some decora- e arts—continue to turn in solid per- rmances. Relative to other kinds of t, works in these areas are less expen- e and therefore have room to appreci- e. Still, these categories tend to lack oad appeal and may never see gigantic ice increases on a year-to-year basis.

Meanwhile, prices for the highfliers of e '80s—Impressionist, Modern, and ntemporary paintings—have slipped ck to mid-1989 levels or below. But mething more important is happening. nsider, again, the Ford sale. Until re- ntly, the name artists and the distin- ished provenance of the works would ve been enough to lure buyers, at big ices, even for paintings that were not of the highest quality. This fall, they weren't. This Ford sale contained many "leftovers," according to one art expert. Ford had sold many of his best paintings a decade ago at Christie's. The lesson: Buyers are getting more discriminating. A market that in recent years was full of greater fools now has fewer of them.

As a result, markets are fragmenting by quality. "We are still seeing pretty good prices for really great things," notes Gilbert S. Edelson, administrative vice-president of the Art Dealers Association of America. An ink drawing by van Gogh fetched $8.4 million at Christie's in November, for example, well above its estimate of $5 million to $7 million.

On the other hand, lower-quality works are no longer drawing big bids, even if they're by van Gogh. Neither his *Vase de Bluets et Coquelicots* nor his *Vue de l'Asile et de la Chapelle de Saint-Remy*, owned by actress Elizabeth Taylor, sold at auctions this fall. Nash provides another example: A year ago, a first-rate Monet would have brought $5 million to $6 million, while a second-rate Monet would have fetched $2 million to $3 million. "Now that ratio has changed, and a second-rate Monet is almost impossible to sell because the seller won't sell at the price the work would fetch." It's this phenomenon that has led to the disastrous rate of auction "buy-ins"—paintings that don't sell.

Such winnowing of the wheat from the chaff is probably most pronounced in Contemporary art, where a year ago, virtually anything went in the auction rooms. Galleries, for their part, sometimes sold out exhibits before they opened, maintained waiting lists for such star painters as Eric Fischl, and often gave collectors just hours to decide about a painting. Now, says Citibank's Vorbach, "you can spend more time making a decision and possibly negotiate a better price."

With business at many galleries down by 35% to 50%, collectors may have better leverage in Impressionist and Modern art, too. In all categories, buyers should pick paintings they want to live with—for they may be living with them longer than they plan.

'A DISEASE.' But will prices fall further? As Vorbach points out, waiting for the market bottom is a meaningless concept in art, where works tend to be unique: Who knows when the piece you want will come on the market again?

Still, if you're set on trying to time your art purchases, Nash ventures that the market for American art may be poised for a recovery. As essentially the province of U.S. buyers, "it was the first area to suffer from the recession, but the last sale in November seemed to indicate that the market has bottomed out," Nash notes.

American art dealers, meanwhile, believe that as art buyers get more sophisticated, they will turn to traditional U.S. painters. Lawrence A. Fleischman, president of New York's Kennedy Galleries Inc., contends that works by such artists as Winslow Homer, John Sloan, Charles Burchfield, Edward Hopper, and Charles Wilson Peale are "underpriced." Prices can range from $45,000 for a Burchfield watercolor to $425,000 for Sloan's *Passing Through Gloucester*.

For collectors willing to wait for a return, the art market is bound to rebound. As dealer Silverman puts it: "There's a broader base of buyers now, and once people get the disease—this is a disease—they'll be back."

By Judith H. Dobrzynski in New York

Passing Through Gloucester: Sloan's painting is for sale for $425,000

PHOTOGRAPH BY KENNEDY GALLERIES; CHART BY ALBERTO MENA/BW

THIS COULD BE A YEAR THAT DRIVES THE GOLD BUGS BATTY

Recession spells the doldrums for precious metals—unless a prolonged Mideast war occurs

The threat of hostilities in the Persian Gulf, a weak dollar, a surge in oil prices: just the sort of events that boost precious metals. Indeed, in 1990, the metals have performed like stars—shooting stars, that is. The price of gold has fallen 9% since the beginning of the year, and that seems mild compared with the double-digit losses registered by platinum and silver. It's enough to shake the faith of the most devoted gold bug. And, analysts say, the metals' performance will probably get worse before it gets better.

Gold's lack of luster has plenty of immediate explanations. Global supplies are at record levels because of relatively high bullion prices over the past few years. And heavy selling by Saudi investors and Soviet producers has dampened rallies.

But there are more fundamental reasons why gold is in a rut. It is facing rival havens for nervous money. New automated trading and global investing strategies allow investors to easily buy foreign currencies or international bond funds, which also offer protection against a weak dollar and sagging U.S. equities—and pay interest, too. Perhaps, says Vahid Fathi, vice-president of metals research at Prescott, Ball & Turber, Inc. in Cleveland, gold's role as a safer alternative to paper assets is finished. In the future, he thinks, it may behave like any commodity, its performance reflecting supply and demand. That would keep it trading happily between $350 per ounce and $450, its range since early 1989.

But most observers believe gold is far from becoming just another metal. It is still widely seen as an inflation hedge. "It's just that since '82, higher inflation hasn't materialized," notes Anthony Sorrentino of Standard & Poor's Corp. For gold to shine, inflation must return—"at a solid rate of 8%," says Bruce Kaplan, of Kaplan & Co., a Los Angeles consultant. "It's got to be cocktail party conversation."

SAFE HAVENS. Unfortunately, recession and falling prices are more likely. War in the Middle East would definitely spark a knee-jerk jump, from its current $376 to as high as the mid-$400s if hostilities were prolonged. But absent that, few analysts expect big gains in 1991: prices may even sink to $350.

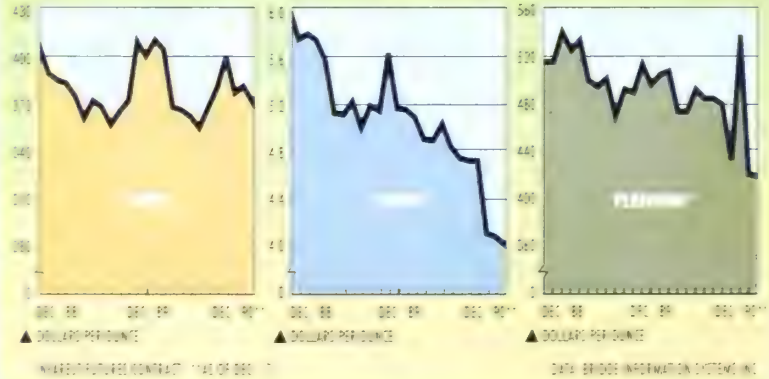
Recession bodes even worse for platinum and silver. Although the also serve as safe havens, the prices respond primarily to i dustrial demand. At $409 pe ounce, platinum is only $3 more expensive than gold. Bu that doesn't signal a buying o portunity. The recession hur the automotive industry, whos use for platinum in catalyt converters is a key source d demand. Even worse, highe mine production will probabl mean a 70,000-ounce surplus g ing into next year, according t Johnson Matthey Inc.'s *Interi Platinum Review*. "It will r quire stunning marketing expe tise to convince the public tha metal in such surplus supply really very precious," com ments Ted Arnold, a Merr Lynch & Co. metals specialis Unless the economy recovers 1991, platinum could sink to $370.

Silver has also been hammered, dow to $3.96 per ounce, a 14-year low. could continue to fall until mid-1991, a low as $3.50. But then it should recove thanks to the bargain prices. Over th longer term, demand from the electro ics and photography industries cou push prices to $5. "If you're looking fiv years out, silver is an attractive buy says Frederick R. Demler, a PaineWe ber Inc. analyst.

That long view is one strategy fo investing in bullion. Another is a ver short-term approach, in and out in a fe months. "The way yo lose money is investin in between, thinking th price will double in tw years," say Jeffrey M Christian of CPM Group New York research an alysts. Precious meta can still be an insuranc policy against catastro phe. But given thei bearish outlook, inves ing 5% of a portfoli would probably do. A ter all, one doesn't wan to be overinsured.

By Troy Segal in Ne York

PRECIOUS METALS' DIMMING LUSTER



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Winners & Losers

Barbara Dixon's advice helped Matterhorn Commodity Partners realize a 68% gain. Key moves: Shorting the dollar early and buying oil in mid-July

Americans love their bacon —almost regardless of cost. So when supplies drop, as they did by some 50% this year, profits leap

This major player in the cost-management business saw its shares rise 230%. HCC works for employers and insurers, scrutinizing doctors' and hospitals' proposed treatment plans for patients. Revenues in the third quarter jumped 47%, and profits soared 158%

THE GOOD, THE BAD, AND THE PATHETIC

Investors had a rough year—unless they happened to be in, say, surgical staples or pork bellies

The word "best" has a hollow sound when investors are suffering. Some might say examining the best investments of 1990 is akin to seeking the coldest coal in hell. No matter. Even the worst years have their champions. In 1987, it was Paul Tudor Jones, the commodities trader extraordinaire. Jones made a repeat performance in 1989, when one of his funds again rose to the top.

Today's champs are a varied lot. Medical technology and pork bellies brought home the bacon in 1990, while banking and real estate—no surprise—were a bummer.

STOCKS

BEST NYSE STOCK: *U. S. Surgical.* This leading manufacturer of surgical staples is awash in profits. And investors have taken notice—to say the least. The Connecticut-based company's shares have advanced some 144% since yearend 1989, making U. S. Surgical the best-performing Big Board stock that began the year at $10 a share or more.

For now, U. S. Surgical seems to be sitting in the catbird seat. Its shares shot up last summer, largely because of a new procedure that allows doctors using a tiny TV camera to remove gallbladders through a small incision in the navel. But even the company's core business is hot: Analysts say surgical staples alone should grow by about 20% annually. And there are also growth opportunities in, among other things, a new line of sutures that will be introduced in March. But at nearly 30 times estimated 1991 profits, U. S. Surgical is hardly cheap. Shortsellers are betting that 1990 was a quirk.

WORST NYSE STOCK: *Prime Motor Inns.* Few real estate companies have had more visible holdings—and fewer still have had more serious financial troubles. Until just the past few months, New Jersey-based Prime operated Howard Johnson, Ramada Inn, and Rodeway Inn hotels—all of which had to be sold off recently. The company's growing problems have been fed by a weak real estate market.

On Sept. 18, when Prime Motor Inns filed for protection under Chapter 11, the shares sank. At $23 in January, Prime is now trading at about 50¢. That 97% drop is the worst suffered by any Big Board issue that began 1990 at 10 or higher.

BEST AMEX STOCK: *OEA.* The name of its chief subsidiary says it all: Explosive Technology. OEA's shares rocketed 144% through mid-December, largely because of explosive growth in the company's No. 1 business—propellant and electro-explosive devices for space vehicles and military and civilian aircraft.

OEA supplies, among other things, the devices used in ejection seats of military aircraft. Analysts predict strong earn-

Every one of the 32 exchange-listed real estate companies suffered substantial declines, easily making the group 1990's worst performer. Aggregate loss: 59%, with the bad tidings likely to continue

A product that allows gallbladder removal without major surgery helped boost U.S. Surgical's shares by 144%

Savvy currency trades helped Gordon Johns guide Kemper Global Income to first place among fixed-income funds—a 22% gain

In 1990, Fidelity's youngest fund manager, 26-year-old Michael Gordon, was also its best: Gordon's Select Biotechnology fund rose 42.49%. True, it was a great time to be in biotech, but many such stocks declined. Gordon managed to avoid them

ıgs growth for this Denver-based company, but 1990-style performance would e hard to repeat.

VORST AMEX STOCK: *Bolar Pharmaeutical.* Things have gone from merely orrible to blood-curdling for this gener- drugmaker. The Copiague (N. Y.) company's shares turned in the worst performance of any Amex stock that began he year at 10 or higher. Back in Februry, the company suspended most manufacturing operations. It has been accused of bribing Food & Drug ıdministration employees to approve its eneric-drug applications.

Product recalls followed, and the company's stock has collapsed, falling from 8¼ at yearend '89 to 2½ in mid-December—an 86% drop. After a beating like hat, shareholders don't have much left o lose if Bolar's troubles continue.

EST OTC STOCK: *HealthCare Compare.* IealthCare Compare's 1990 performance was . . . incomparable. Of all the TC stocks trading higher than 10 a year go, the shares of this Downers Grove ll.) company performed best, rising alost 230% through mid-December.

You guessed it: HealthCare Compare s in the business of comparing health are. It's one of the largest players in he cost-management business. Customrs—corporations or insurers—hire HCC o scrutinize doctors' and hospitals' plans before patients undergo treatment. It has been a healthy business: Revenues in the third quarter jumped 47%, and profits soared 158%. But analyst Bradley S. Wilson of Blunt Ellis & Loewi Inc. isn't sure the 1990 price gains are sustainable.

WORST OTC STOCK: *First Constitution Financial.* It was a miserable year for financial stocks and a rotten year for over-the-counter stocks. So here's a savings-and-loan holding company that falls into both categories, and sure enough, it was 1990's worst-performing over-the-counter stock, diving 93%.

Like many other thrifts, this Connecticut-based S&L is up to its ears in lousy commercial real estate, especially construction lending. "They bought into the real estate boom hook, line, and sinker—and they were particularly inept at it," says Don J. Kauth, an analyst at First Albany Cos. Nonperforming assets exploded to $273 million, or 12.5% of total assets, by the end of the third quarter. Not surprisingly, shareholders bailed out—without a parachute, it seems.

BEST STOCK GROUP: *Medical technology.* Defensive stocks—issues that do well even in tough times—perform best when the market thinks there's something to be defended against, and the economy's travails were reason enough to boost this group. People still get sick and want to get well, at least in theory. And generally, medical-technology stocks have had a buoyant year, led by the best-performing Big Board issue, U. S. Surgical. Becton Dickinson and Acuson also rose handsomely.

The outlook for 1991 remains reasonably good. Moreover, many of these companies have large international exposures and will benefit if the dollar remains weak. Any reduction in European trade barriers will help, too.

WORST STOCK GROUP: *Land development.* How did your stocks perform this year? If the answer is "not very well," don't despair—just take a gander at real estate stocks. Every one of the 32 exchange-listed land-development companies registered a substantial decline during the year, easily making this group 1990's worst performer. They had an aggregate loss of 59%, with prominent companies such as Hovnanian Enterprises and Patten doing even worse. And with bad tidings from the world of real estate likely to continue, analysts agree that these companies remain risky.

PEOPLE

BEST EQUITY FUND MANAGER: *Michael Gordon.* At 26, Gordon is Fidelity's youngest fund manager, and in 1990, he was also its best, with his Select Biotechnology fund gaining 42.49%. True, it was

Explosive growth in OEA's No. 1 business—propellant and electro-explosives for space, military, and civilian vehicles, including devices used in ejection seats of military aircraft—rocketed the stock to a 144% advance

OEA

Surprise: Sale prices of new and existing homes in the Columbus (Ohio) area gained some 25% through October

Even in tough times, people get sick and have to get well, goes the theory. And medical-technology stocks did have a robust year. The prognosis for '91: More black ink

a great time to be in biotech generally, but many such stocks declined. Gordon managed to avoid them. His gains came in large measure from stakes in three hot issues: Amgen, Genentech, and Immunex. "I wish I could take all the credit," he modestly points out. "But it wasn't me, it was the stocks."

This year's strong gains will be tough to match next year, Gordon admits. Still, he expects biotech stocks to outperform the overall market. He likes companies with hot products and strong earnings potential. But as a sector-fund manager, Gordon doesn't have much flexibility. "If biotech stocks do poorly, I could be at the bottom next year," he says.

BEST BOND FUND MANAGER: *Gordon Johns.* Based in London, Johns runs the Kemper Global Income Fund. It gained 22% through Nov. 30, making it top dog of all fixed-income funds. Johns invests primarily in overseas government bonds, keeping his credit risk low. The fund did well because of declining interest rates and savvy currency trades. "I would be surprised but gratified if we did as well next year," he says.

Johns expects the dollar to firm in 1991. That would be bad for his corner of the bond market: The bulk of the fund is invested in Europe, which will enable him to avoid the yen, and above all, the greenback. But if the dollar strengthens next year, as Johns and other analysts expect, he'll have a far tougher row to hoe.

BEST COMMODITY FUND MANAGER: *Barbara Dixon.* Dixon hangs her hat in New York, where she heads Spackenkill Trading Corp., the adviser to the $6.2 million Matterhorn Commodity Partners II fund. It's up 68.2% through Dec. 10.

Dixon says her success comes primarily from a couple of plays: shorting the dollar early in the year and riding it down, and buying oil in mid-July and holding it through October. "I look for markets that will go further than anybody would have thought," says Dixon. Like most commodity traders, she uses technical rather than fundamental criteria. "When it's obvious, any kid can do it," says Dixon. "The trick is learning to identify the trend when you can still make some money from it."

MARKETS

BEST REAL ESTATE MARKET: *Columbus (Ohio) metropolitan area.* Real estate prices are notoriously tough to gauge—particularly when prices around the nation are depressed. But figures from the Office of Thrift Supervision show a bright spot: Sale prices of new and existing homes in the Columbus area have gained some 25% through October. Local realty-board figures indicate that home prices steadily increased in recent years and had only one down year since 1955.

Columbus has never had the industrial employment of most cities in the area, so it never got the blue-collar blues. Meanwhile, the city's white-collar employment has steadily advanced. All of this has kept home values moving upward.

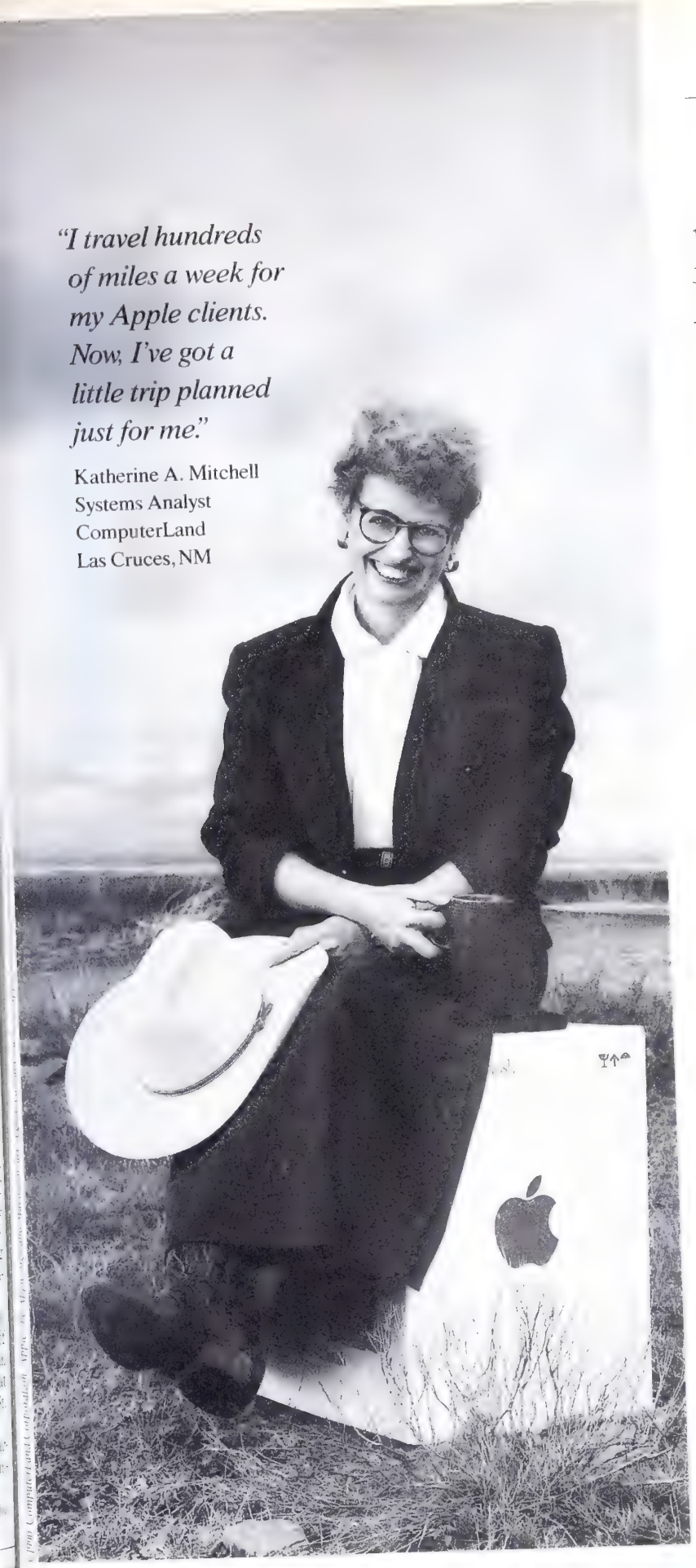
BEST COMMODITY: *Pork bellies.* Why is this pig smiling (page 144)? He may not know it—in fact, he almost definitely does not—but his flanks are fetching an ever-increasing price in the slaughterhouses of the U. S. Yes, pork bellies—bacon to you—are the champion commodity of 1990, with near-futures prices gaining 33% during the year.

Demand for pork bellies is rather inelastic—people tend to buy the same amount of bacon almost regardless of cost—so prices move directly opposite supplies. Pork bellies fell by nearly 50% in 1990 because of a shortfall in the pig population caused by prodigious slaughtering in recent years.

"It takes a major change in prices to change demand for bacon, so a drop-off in supply makes a big difference [in profits]," says Jerry Abbenhaus, a meat analyst for A. G. Edwards Inc. in St. Louis.

So when this little piggy goes to market, he can confidently expect to command top dollar.

By Gary Weiss in New York, with bureau reports



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INTERNATIONAL PAPER

YOU CAN'T TELL THE STANDOUTS WITHOUT A SCOREBOARD

A survey of 2,500 analysts provides a crystal-ball look at 900 companies for 1991

It has hardly been a propitious year for stock-pickers. As the eight-year economic expansion sputtered, the market lost its vigor. With a full-blown recession under way, spotting good buys in 1991 will be very tough. But before you dash off to your broker for some friendly advice, it may be worthwhile to do a little legwork on your own. To help you limber up, BUSINESS WEEK has again compiled its annual Investment Outlook Scoreboard.

The following pages contain a wealth of financial intelligence on 900 publicly traded companies. Divided into 24 industry groups, the Scoreboard provides vital historical facts on each company. The data, provided by Standard & Poor's Compustat Services Inc., include such handy statistical tools as book value per share and dividend yield.

A glimpse into the future is offered by the brokerage firm of Lynch, Jones & Ryan. Its Institutional Brokerage Estimate System surveyed 2,500 securities analysts across the country. Their opinions have been distilled into a consensus forecast of 1991 earnings for each company.

Broken out separately are analysts' estimates of the best and worst earnings performances by industry group (tables).

WHAT THE ANALYSTS EXPECT: INDUSTRY GROUP WINNERS AND LOSERS

1990

THE STRONGEST	Earnings change from 1989
COMPUTERS	62%
ENGINEERING/CONSTRUCTION	55
BEVERAGES	53
HEALTH SERVICES	45
FOOD DISTRIBUTION	44
PETROLEUM SERVICES	41
AEROSPACE	39
FOOD RETAILING	37
PERSONAL CARE	30
ENTERTAINMENT	28

THE WEAKEST	
SAVINGS & LOAN	–96%
TEXTILES	–67
CARS & TRUCKS	–62
FOREST PRODUCTS	–48
BANKS–SOUTH & SOUTHEAST	–46
REAL ESTATE	–36
PAPER CONTAINERS	–31
PUBLISHING	–30
FINANCIAL SERVICES	–26
AUTO PARTS	–26

1991

THE STRONGEST	Earnings change from 1990
BANKS–EAST	130%
TEXTILES	118
SEMICONDUCTORS	89
TRUCKING & SHIPPING	57
COMPUTERS	48
BANKS–SOUTH & SOUTHEAST	43
AUTO PARTS	41
MISCELLANEOUS LEISURE	40
AEROSPACE	37
PUBLISHING	36

THE WEAKEST	
NONFERROUS METALS	–16%
REAL ESTATE	–3
PAPER	–2
PAPER CONTAINERS	2
CHEMICALS	2
ELECTRIC UTILITIES	5
TELECOMMUNICATIONS SERVICES	8
BUILDING MATERIALS	8
TELEPHONE COMPANIES	8
FINANCIAL SERVICES	9

Because of net losses in either 1989 or 1990, but net profits in the other year, earnings gains or losses for airlines and Eastern banks cannot be calculated meaningfully on a percentage basis. Similarly, the projected percentage increase in earnings for airlines and savings and loan companies in 1991 cannot be tallied

DATA: INSTITUTIONAL BROKERS ESTIMATE SYSTEM, STANDARD & POOR'S COMPUSTAT SERVICES INC.

Analysts are betting that East Coast banks could show the biggest profit improvement next year. That follows a rather dismal showing for many banks in 1990. Similarly, textiles may rebound. The biggest profit disappointment, the analysts say, could come in the nonferrous metals group, such as mining companies. Analysts also don't expect much from real estate companies.

Still, many investors aren't about to scoop up shares in companies just on the basis of an industry forecast. Veteran stock-pickers wisely consider a wide variety of measures before buying shares. With this in mind, BUSINESS WEEK has sifted through the pile of company statistics and identified stocks that meet the criteria of six popular investment strategies that you can use to make the process of stock-picking less of a chore (page 150).

FATTENING UP. One traditional method is simply looking at the bottom line. Few things levitate stock prices like fat profits. The list of companies expected to post the biggest earnings gains in 1991 contains many businesses that weathered tough times this year. For example, SCI Systems will show the biggest improvement in 1991, according to the consensus. The Huntsville (Ala.) electronic-components manufacturer should earn 97¢ a share next year, compared with 11¢ in 1990. Analysts say SCI's profits were hurt in part this year because of the company's investment in plant and equipment.

High yields are another useful yardstick. Stocks that pay fat dividends offer good income even in bear markets. And that could be a strong selling point, if the recession batters the market next year and the returns from other investments decline. Financial companies weren't included in this year's collection, since many banks and insurance companies are currently bolstering balance sheets by cutting payouts.

Many bargain hunters look for stocks selling way below their per-share book value—the difference between assets and liabilities divided by the number of shares outstanding. But be careful. The trick is to determine whether a company is merely overlooked—or on the skids. Insurance companies and savings and

loans dominate this year's list of stocks selling under book, but the prospects for both industries are clouded.

Price-earnings ratios are another tool investors use to find underpriced stocks. A low p-e multiple could suggest that the market is responding to recent bad news that might be obscuring the company's long-term strengths. Eagle-Picher Industries, a machinery and auto-parts maker, tops the current list, with a p-e ratio of 1.0, compared with an average of 11.6 for the 900 companies in the Scoreboard. Eagle-Picher currently faces a slew of asbestos-injury claims.

A somewhat similar strategy is picking stocks that have few institutional investors. Pension funds, which are among the biggest stock players, generally limit themselves to well-established corporations closely tracked by analysts. Smaller companies with auspicious prospects are often ignored by the pros. If institutional investors eventually spy the same potential in a stock that you do, the issue could really take off. Baroid in Houston tops this year's list. Institutions own less than 0.1% of the oil-equipment maker's common shares.

As you begin scouting for stocks for 1991, keep in mind that the Scoreboard is only a rough guide to the future. Still, it may make the hunt a little easier—and more rewarding.

By John Meehan and Robert Mims, with Fred F. Jespersen, in New York

WHERE INVESTORS LOOK FOR OPPORTUNITIES

COMPANIES WITH THE HIGHEST YIELD

If the goal is income, these companies pay among the highest annual dividends as a percent of stock price

	Percent
AVONDALE INDUSTRIES	17.9%
STERLING CHEMICALS	17.8
UNOCAL EXPLORATION	11.3
GOODYEAR TIRE & RUBBER	11.2
OCCIDENTAL PETROLEUM	11.1
FORD MOTOR	11.0
LYONDELL PETROCHEMICAL	10.4
GENCORP	10.2
SOUTHWEST GAS	10.2
CHRYSLER	10.1
CHEMED	9.8
BALLY MFG.	9.6

STOCKS THE INSTITUTIONS RARELY HOLD

They may be unpopular or just overlooked. But if the institutions suddenly take notice, prices could rise

	Percent of shares held by institutions	Number of institutions holding
BAROID	0.07%	1
WLR FOODS	2	12
RICHFOOD HOLDINGS	4	13
SAFEWAY	5	25
FIGGIE INTERNATIONAL	5	25
C&S/SOVRAN	5	27
TURNER BROADCASTING	5	44
FOOD LION	5	78
PILGRIM'S PRIDE	6	19
GREAT AMERICAN BANK	6	21
INGLES MARKETS	6	24
PACIFIC TELECOM	6	42
AVERAGE OF 900 COMPANIES	51%	231

HIGH HOPES FOR EARNINGS PER SHARE

Looking at the bottom line? These companies' earnings are forecast to move smartly in 1991

	Percent change 1990-91
SCI SYSTEMS	782%
AZTAR	660
DIGITAL EQUIPMENT	573
FLEET/NORSTAR	554
NATIONAL INTERGROUP	426
VARIAN ASSOCIATES	367
AMERICAN EXPRESS	341
MERISEL	306
SANTA FE PACIFIC	295
FIRST MISSISSIPPI	255
INLAND STEEL	250
AIR & WATER TECHNOLOGIES	243

THE LOWEST PRICE-EARNINGS RATIOS

Prices of these stocks compared to 1991 forecast earnings-per-share suggest unrecognized values. Negative EPS estimates excluded

	Ratio
EAGLE-PICHER INDUSTRIES	1.0
MAXXAM	1.5
FIRST CAPITAL HOLDINGS	1.6
GLENFED	1.7
GEORGIA GULF	2.1
MAGMA COPPER	2.4
MONARCH CAPITAL	2.8
AVONDALE INDUSTRIES	2.9
NWNL	3.0
CITADEL HOLDING	3.2
EQUITABLE OF IOWA	3.2
LYONDELL PETROCHEMICAL	3.7

FORECASTERS AGREE LEAST ABOUT THESE COMPANIES

Uncertainty could spell opportunity. The 1991 earnings-per-share estimates range all over the lot for these stocks. Example: Estimates for Unisys range from a profit of $.73 to a loss of $.69

	Consensus for 1991 Cents per share	Variation in forecasts Percent
UNISYS	2	3,574%
USG	–6	1,135
U. S. HOME	3	740
CROSS & TRECKER	8	538
VIACOM	6	485
TONKA	–19	406
MNC FINANCIAL	61	275
QUANTUM CHEMICAL	79	250
OUTBOARD MARINE	–28	234
AMBASE	–42	227
CUMMINS ENGINE	–115	223
DELTA AIR LINES	–147	216

STOCKS SELLING WAY BELOW BOOK VALUE

Bargain hunters take note. The stock price of these companies as a percentage of book is at the bottom

	Percent
AMBASE	4%
CALFED	6
MONARCH CAPITAL	6
GREAT AMERICAN BANK	9
FIRST CITY BANCORP. TEXAS	11
HOMEFED	11
DIME SAVINGS BANK	14
GLENFED	16
BALLY MFG.	17
BUSINESSLAND	17
GM HUGHES ELECTRONICS	18
WTD INDUSTRIES	20

DATA: AS OF NOV. 30, INSTITUTIONAL BROKERS ESTIMATE SYSTEM, STANDARD & POOR'S COMPUSTAT SERVICES INC.

INVESTMENT OUTLOOK SCOREBOARD

1991

LOSSARY

Y: Number of the month in which ompany's fiscal year ends.
ook value per share: Sum of common ock at nominal balance-sheet value, capital rplus, and retained earnings as shown in ompany accounts, divided by number of ares outstanding.
-E ratio: Nov. 30 stock price divided by stimated 1990 earnings.
ividend rate: Indicated annual payment ate based on latest quarterly dividend plus ny recurring extra or special yearend ividends.
ield: Indicated annual dividend as a ercent of Nov. 30 stock price.

Shares outstanding: Millions of common shares outstanding as of company's latest available financial report, excluding treasury shares.

Market value: Percentage change in total market value of the company's most widely held common stock issue since Jan. 1, 1990.

Institutional holdings: Percentage of outstanding common shares held by banks, insurance and investment companies, colleges, and pension funds, and the number of such institutions.

Turnover: Percentage of outstanding shares changing hands in 1990.

Earnings per share: Primary earnings per share—net income (including proceeds from certain convertible securities, warrants, and options that are common-stock equivalents, but excluding extraordinary profit or loss items) divided by number of common and common-equivalent shares.

Earnings per share estimates: Analysts' consensus estimates for 1990 and 1991 compiled by Institutional Brokers Estimate System. Trend estimate, based on pattern of past five years, compiled by Standard & Poor's Compustat Services.

Variation: The percentage by which two-thirds of the 1991 earnings estimates are above or below the average estimate. The lower this figure is, the more analysts agree on their estimates.

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIV-DEND RATE	YIELD	SHRS OUT. MILS	1990 MARKET VALUE CHANGE	INSTITUTIONAL HOLDINGS NUMBER	1990 TURN OVER	EARNINGS PER SHARE 1989 ACTUAL	1991 ESTIMATES 1990 ANALYST EST	BASED ON 5-YEAR TREND	FROM ANALYSTS CON-SENSUS	FROM ANALYSTS VARIA-TION %
ALL-INDUSTRY AVERAGE		**34**	**23**	**19**	**0.90**	**3.59**	**78.7**	**–19**	**51**	**231**	**67.2**	**2.58**	**2.47**	**4.54**	**2.94**	**19.3**
AEROSPACE																
INDUSTRY AVERAGE		**26**	**30**	**8**	**1.12**	**4.74**	**66.5**	**–17**	**54**	**245**	**65.0**	**2.01**	**2.79**	**3.19**	**3.81**	**9.9**
Boeing	12	44	19	11	1.00	2.26	346.4	12	57	860	86.8	1.96	4.06	3.22	5.04	4.5
GenCorp	11	6	6	6	0.60	10.21	31.7	–51	57	95	46.7	0.25	0.93	0.55	1.13	27.3
General Dynamics	12	23	49	NM	1.00	4.28	41.7	–48	53	210	50.7	7.01	–0.78	NA	6.17	8.4
Grumman	12	18	26	7	1.00	5.59	32.9	16	33	128	40.6	1.91	2.48	1.99	2.43	4.9
Kaman	12	8	10	7	0.44	5.87	18.1	–20	40	67	69.4	0.48	1.05	0.78	1.18	6.4
Lockheed	12	31	35	6	1.80	5.88	63.2	21	49	244	44.8	0.10	5.15	0.84	5.05	6.9
Martin Marietta	12	43	29	7	1.50	3.50	50.9	–3	63	305	53.7	5.82	6.52	7.27	6.93	2.8
McDonnell Douglas	12	43	92	14	2.82	6.50	38.3	–29	39	160	93.3	–0.97	3.09	3.47	5.34	28.3
Northrop	12	17	21	6	1.20	7.06	47.0	–3	55	164	69.3	–1.71	2.81	2.29	2.94	13.3
Rohr Industries	07	15	24	NM	0.00	0.00	17.7	–29	60	89	81.8	1.90	0.00*	1.30	1.68	11.4
Sundstrand	12	27	17	9	1.10	4.07	36.2	–19	67	160	67.7	3.09	3.05	3.30	3.19	8.9
Thiokol	06	13	15	6	0.30	2.35	19.1	–3	62	112	77.9	0.93	2.15*	NA	2.38	2.9
United Technologies	12	45	43	8	1.80	4.03	121.3	–18	70	592	61.6	5.34	5.71	10.07	6.03	3.3
AUTOMOTIVE																
INDUSTRY AVERAGE		**23**	**24**	**16**	**1.26**	**5.32**	**105.1**	**–26**	**47**	**224**	**48.5**	**2.82**	**1.69**	**2.97**	**2.10**	**40.8**
CARS & TRUCKS GROUP AVERAGE		**22**	**34**	**27**	**1.94**	**7.48**	**317.4**	**–33**	**47**	**468**	**49.3**	**4.61**	**1.75**	**4.02**	**1.92**	**67.8**
Chrysler	12	12	32	74	1.20	10.11	225.4	–37	57	293	64.3	1.36	0.16	0.25	0.40	160.0
Ford Motor	12	27	50	8	3.00	10.96	473.0	–37	52	765	41.2	8.22	3.39	6.27	3.23	36.6
General Motors	12	37	55	12	3.00	8.22	603.9	–14	43	896	44.3	6.33	2.93	4.07	3.21	32.1
Navistar International	10	2	3	NM	0.00	0.00	250.0	–49	42	205	53.0	0.23	–0.16*	NA	0.20	90.4
Paccar	12	31	30	13	2.50	8.13	34.8	–28	42	182	43.4	6.90	2.42	5.49	2.54	19.8
PARTS & EQUIPMENT GROUP AVERAGE		**19**	**21**	**10**	**1.00**	**4.56**	**28.8**	**–26**	**45**	**116**	**42.9**	**1.73**	**1.28**	**2.28**	**1.80**	**37.8**
Arvin Industries	12	16	20	12	0.68	4.25	18.8	2	29	70	40.8	0.70	1.29	0.66	1.62	18.8
Cummins Engine	12	34	63	NM	2.20	6.47	10.8	–29	66	125	83.6	–1.52	–4.88	NA	–1.15	222.8
Dana	12	27	26	11	1.60	5.87	41.0	–21	63	233	33.5	3.24	2.54	3.28	2.86	15.8
Eagle-Picher Industries	11	3	–16	1	0.00	0.00	10.9	–63	34	57	102.7	5.04	2.90	3.53	2.85	17.4
Eaton	12	47	33	10	2.20	4.73	34.7	–23	69	250	42.1	5.59	4.82	5.97	4.87	12.3
Echlin	08	11	12	13	0.70	6.22	55.8	–28	75	195	45.5	0.80	0.85*	0.79	0.98	8.7
Federal-Mogul	12	14	11	16	0.92	6.81	22.3	–36	52	87	31.0	1.26	0.82	1.16	1.19	12.4
Masco Industries	12	4	5	12	0.00	0.00	76.0	–45	6	58	26.4	0.58	0.35	1.20	0.47	28.5
Smith (A. O.)	12	15	36	5	0.80	5.20	7.9	12	14	30	6.8	–1.08	2.95	2.07	3.13	11.2
Standard Products	06	15	15	13	0.92	6.03	10.2	–31	45	59	16.4	2.71	1.16*	1.83	1.15	30.1

Footnotes: *Actual, not estimated data. NA=not available. NM=not meaningful. (a) Shares outstanding as of fiscal yearend. (b) Actual and estimated EPS figures are fully diluted. (c) Dividend rate excludes a nonrecurring extra or special yearend dividend. (d) Company pays a recurring stock dividend. Data compiled by Standard & Poor's Compustat Services Inc. from such sources as statistical services, newspapers, registration statements, and company reports that SPCS believes to be reliable but that are not guaranteed by either SPCS or BUSINESS WEEK as to correctness or completeness. This material is not an offer to buy or sell any security. Additional data: Institutional Brokers Estimate System, Vickers Stock Research Corp.

INVESTMENT OUTLOOK SCOREBOARD

COMPANY											EARNINGS PER SHARE 1991 ESTIMATES				
TIRE & RUBBER															
GROUP AVERAGE	36	22	16	1.07	4.52	30.4	–19	53	190	61.8	3.32	2.63	3.47	3.09	14.5
Bandag															
Carlisle															
Cooper Tire & Rubber															
Goodyear Tire & Rubber															
3 BANKS															
INDUSTRY AVERAGE	20	27	8	1.53	9.52	77.1	–35	51	221	76.7	1.68	2.40	3.62	3.43	25.8
BANKS - EAST															
GROUP AVERAGE	17	26	10	1.52	10.89	86.8	–43	53	247	88.0	–1.30	1.29	2.51	2.97	41.5
Bank of Boston															
Bank of New England															
Bank of New York															
Bankers Trust New York															
Chase Manhattan															
Chemical Banking															
Citicorp															
CoreStates Financial															
First Fidelity Bancorporation															
Fleet/Norstar Financial Group															
KeyCorp															
Manufacturers Hanover															
Mellon Bank															
Meridian Bancorp															
Midlantic															
MNC Financial															
Morgan (J. P.)															
PNC Financial															
Republic New York															
Shawmut National															
UJB Financial															
BANKS - MIDWEST															
GROUP AVERAGE	22	26	7	1.45	6.92	57.9	–22	50	175	53.9	3.91	3.32	4.23	3.71	7.8
Banc One															
Boatmen's Bancshares															
Comerica															
Continental Bank															
First Bank System															
First Chicago															
First of America Bank															
Huntington Bancshares															
Michigan National															
National City															
NBD Bancorp															
Northern Trust															
Norwest															
Society															
BANKS - SOUTH & SOUTHEAST															
GROUP AVERAGE	19	24	7	1.20	6.84	77.3	–35	44	193	65.3	3.58	1.92	3.34	2.74	24.1
Barnett Banks															
C&S/Sovran															
Crestar Financial															
First Union															
First Wachovia															
NCNB															
Signet Banking															
Southeast Banking															
SunTrust Banks															
BANKS - WEST & SOUTHWEST															
GROUP AVERAGE	23	36	5	2.21	14.78	87.7	–41	58	279	107.5	4.06	4.91	6.18	5.46	17.6
BankAmerica															
First City Bancorp. of Texas															
First Interstate Bancorp															
Security Pacific															
U. S. Bancorp															
Wells Fargo															
4 CHEMICALS															
INDUSTRY AVERAGE	31	17	12	1.24	4.46	72.0	–13	54	232	61.0	3.19	2.83	4.86	2.89	16.5
Air Products & Chemicals															
American Cyanamid															
Arco Chemical															

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST	1990 DIVIDEND RATE	YIELD	SHRS OUT MILS	1990 MARKET VALUE CHANGE	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER	EARNINGS PER SHARE 1989 ACTUAL	1991 ESTIMATES 1990 ANALYST EST	1991 ESTIMATES BASED ON 5-YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
Betz Laboratories	12	39	7	19	1.08	2.77	28.3	31	74	206	74.7	1.77	2.04	2.26	2.26	4.5
Cabot	09	29	19	11	1.04	3.59	24.5	21	71	131	34.0	–0.40	2.73*	2.50	3.13	4.8
Dexter	12	20	14	11	0.88	4.46	24.1	–12	65	106	48.8	1.73	1.78	2.04	1.98	4.7
Dow Chemical	12	46	32	9	2.60	5.62	270.0	–35	54	838	63.9	9.20	4.95	23.83	4.24	16.2
Du Pont	12	37	24	11	1.68	4.56	675.6	11	39	760	30.1	3.53	3.44	4.60	3.56	7.8
Engelhard	12	18	15	12	0.68	3.75	44.6	–6	47	145	33.3	–1.72	1.49	1.69	1.87	10.7
Ethyl	12	24	9	13	0.60	2.49	119.6	–12	39	262	34.2	1.83	1.90	2.45	2.08	5.9
Ferro	12	18	12	13	0.64	3.56	19.2	31	49	92	138.9	2.25	1.35	2.94	1.73	10.4
First Mississippi	06	10	10	44	0.30	3.08	19.6	–39	55	119	55.1	0.81	0.22*	0.38	0.78	4.6
Freeport-McMoRan	12	35	3	28	2.50(c)	7.19	59.2	21	51	202	52.7	2.17	1.24	2.53	2.07	16.6
Fuller (H. B.)	11	29	21	13	0.60	2.10	9.0	24	40	68	95.2	1.64	2.16	2.24	2.46	3.0
Georgia Gulf	12	6	–13	2	0.00(c)	0.00	33.6	–81	32	73	161.6	7.58	2.84	8.74	1.59	21.4
Goodrich (B. F.)	12	39	49	11	2.12	5.51	25.4	–7	68	235	76.5	6.43	3.59	12.99	3.39	17.7
Grace (W. R.)	12	23	21	10	1.40	6.09	86.0	–29	65	304	61.1	3.01	2.35	3.37	2.52	7.7
Great Lakes Chemical	12	60	20	15	0.48	0.80	35.2	28	76	277	52.0	3.52	3.98	6.42	4.44	4.6
Hanna (M. A.)	12	18	20	10	0.60	3.33	27.9	–33	56	108	40.1	3.34	1.88	2.67	2.09	8.2
Hercules	12	33	41	12	2.24	6.87	47.0	–16	74	261	53.8	–2.09	2.76	3.47	3.12	7.7
IMC Fertilizer Group	06	35	31	11	1.08	3.11	26.3	3	53	119	75.7	5.27	3.13*	NA	3.86	12.6
Loctite	06	56	17	17	1.20	2.13	18.2	20	42	125	34.5	3.03	3.39*	4.57	3.86	3.0
Lubrizol	12	47	21	14	1.52	3.22	34.7	18	68	223	82.8	2.52	3.47	4.10	3.80	7.5
Lyondell Petrochemical	12	15	0	4	1.60(c)	10.41	80.0	–28	37	111	32.2	4.67	4.08	NA	2.10	16.6
Monsanto	12	47	33	11	1.94(c)	4.13	126.5	–22	67	564	82.6	5.02	4.34	5.77	4.97	7.6
Morton International	06	44	22	16	0.96	2.17	48.1	24	66	258	56.6	2.03	2.80*	NA	3.03	2.5
Nalco Chemical	12	52	7	16	1.60	3.08	34.6	1	65	292	52.2	3.01	3.30	3.86	3.67	5.2
NL Industries	12	12	0	5	0.60	4.85	64.3	51	22	121	17.9	2.57	2.65	2.27	3.13	5.7
Olin	12	33	32	7	2.20	6.59	19.1	–44	52	161	56.1	6.02	4.67	6.23	4.62	17.5
Quantum Chemical	12	13	–5	9	0.00	0.00	27.3	–53	29	157	114.9	4.45	1.41	4.03	0.79	249.9
Rohm & Haas	12	33	18	11	1.24	3.73	66.6	–4	61	207	22.1	2.65	2.95	3.49	2.86	10.4
Schulman (A.)	08	28	11	15	0.32	1.16	20.1	16	59	116	38.8	1.53	1.79*	2.42	1.98	3.3
Sterling Chemicals	09	6	2	5	1.00	17.78	55.0	–28	25	45	17.5	1.77	1.07*	1.34	0.86	24.5
Union Carbide	12	16	19	7	1.00	6.25	144.3	–30	50	331	99.7	4.07	2.45	4.91	2.02	25.2
Vista Chemical	09	26	–11	5	1.80	6.92	10.6	–33	69	93	95.4	8.56	5.53*	12.14	4.03	17.9
Witco	12	27	27	9	1.72	6.49	21.7	–34	65	134	45.8	1.60	3.03	2.37	3.21	4.7
CONGLOMERATES																
INDUSTRY AVERAGE		**25**	**22**	**12**	**1.08**	**4.24**	**109.8**	**–30**	**53**	**300**	**50.2**	**2.63**	**2.55**	**3.55**	**2.89**	**14.2**
Alco Standard	09	33	16	15	0.88	2.71	40.8	–5	49	200	27.8	2.68	2.19*	2.67	2.70	7.6
Allied-Signal	12	28	25	8	1.80	6.49	134.8	–26	62	432	44.3	3.55	3.34	3.46	3.36	8.8
Figgie International	12	21	18	9	0.50	2.38	18.7	–22	5	25	3.1	3.04	2.47	3.32	2.52	25.0
Fuqua Industries	12	12	19	12	0.36	2.91	16.5	61	34	73	59.9	0.34	1.04	0.73	1.35	13.3
General Cinema	10	18	22	28	0.48	2.63	69.6	–29	44	224	30.4	1.43	0.66	0.86	0.99	17.9
General Electric	12	55	24	11	1.88	3.43	877.5	–18	52	1285	42.0	4.36	4.87	5.62	5.28	2.2
General Host	01	5	8	13	0.32	6.92	18.2	–28	40	46	44.0	0.05	0.35	NA	0.60	NM
Greyhound Dial	12	22	26	8	1.40	6.26	39.4	–31	49	188	65.4	2.75	2.86	2.88	3.06	6.8
Household International	12	27	36	5	2.20	8.15	35.5	–48	66	265	100.8	5.60(b)	5.80	7.53	6.47	4.8
Itel	12	10	11	11	0.00	0.00	43.8	–60	78	106	45.0	0.47	0.92	NA	0.89	88.6
ITT	12	47	63	7	1.72	3.67	120.5	–22	63	547	58.0	6.52	6.52	10.64	6.66	7.5
National Intergroup	03	12	20	31	0.00	0.00	21.8	–17	33	104	77.6	–0.90	0.38	NA	2.00	0.0
Ogden	12	19	12	13	1.25	6.76	42.6	–38	45	199	61.6	1.68	1.38	2.19	1.68	7.6
Pall	07	33	11	19	0.56	1.68	38.6	–2	54	229	47.2	1.51	1.72*	1.99	2.02	5.9
Penn Central	12	18	32	10	0.48	2.67	51.4	–49	94	167	46.8	2.48	1.85	1.93	2.03	27.8
Premark International	12	15	24	7	0.84	5.46	30.8	–55	61	183	60.7	2.24	2.16	2.24	2.39	6.7
Rockwell International	09	27	17	11	0.86	3.20	241.6	11	49	325	29.8	2.87	2.56*	3.13	2.73	2.6
Teledyne	12	14	10	8	0.80	5.66	55.4	–79	33	174	31.6	2.71	1.73	1.71	2.07	18.5
Tenneco	12	46	27	10	3.20	7.01	123.5	–28	55	665	70.3	4.46	4.73	6.18	5.05	12.0
Textron	12	24	31	8	1.00	4.12	86.2	–5	59	275	38.3	3.02	3.15	3.38	3.27	3.5
TRW	12	34	31	9	1.80	5.27	60.6	31	70	334	40.0	4.31	3.71	5.21	4.18	10.2
USX	12	31	22	11	1.40	4.48	255.1	–13	61	535	70.4	3.53	2.95	3.69	3.35	10.7
Whitman	12	19	3	14	1.06	5.73	102.8	–35	58	321	59.8	1.87	1.31	1.60	1.73	11.0
CONSUMER PRODUCTS																
INDUSTRY AVERAGE		**26**	**13**	**12**	**0.77**	**3.14**	**90.6**	**–18**	**50**	**226**	**69.6**	**1.88**	**2.11**	**2.75**	**2.44**	**10.3**
APPAREL																
GROUP AVERAGE		**17**	**12**	**9**	**0.42**	**3.01**	**37.0**	**–28**	**53**	**149**	**117.8**	**1.85**	**1.84**	**3.42**	**2.24**	**12.4**
Brown Group	01	25	19	12	1.60	6.50	17.3	–10	63	137	44.6	1.78	2.02	1.73	2.43	11.6
Crystal Brands	12	20	28	6	0.20	1.00	9.1	–30	72	93	53.9	3.02	3.30	7.20	3.58	3.0
Fruit of the Loom	12	8	7	6	0.00	0.00	61.7	–46	50	159	117.1	1.11(b)	1.39	2.03	1.54	9.2
Gitano Group	12	13	14	6	0.00	0.00	15.7	–51	24	54	37.1	2.21	2.03	NA	2.73	4.1
Hartmarx	11	7	15	NM	0.60	8.73	20.0	–64	70	141	65.2	0.89	–0.21	NA	0.74	63.0
Kellwood	04	9	17	7	0.80	8.53	11.8	–58	67	86	80.8	1.20	1.26	1.25	1.65	12.5
L. A. Gear	11	12	11	6	0.00	0.00	19.4	–62	25	72	629.3	3.01	2.04	12.14	2.28	11.9
Leslie Fay	12	11	9	7	0.00	0.00	19.1	14	58	77	59.9	1.35	1.59	1.44	1.88	6.2
Liz Claiborne	12	29	8	13	0.25	0.86	87.1	19	73	372	167.2	1.87	2.27	2.81	2.61	3.1
Nike	05	34	12	9	0.40	1.17	75.1	29	52	299	287.1	3.21	3.95	6.56	4.53	7.4
Oxford Industries	05	7	11	10	0.50	7.41	9.0	–51	63	29	9.6	0.82	0.68	0.72	0.98	12.8

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY													EARNINGS PER SHARE 1991 ESTIMATES			
															BASED ON 5-YEAR TREND	FROM ANALYSTS ON CENSUS	FROM ANALYSTS % CHANGE
Phillips-Van Heusen	01	15	5	7	0.28	1.91	9.1	–9	33	63	58.1	1.67	2.05	2.18	2.49	12.3
Reebok International	12	11	8	7	0.30	2.73	114.3	–42	34	240	74.4	1.53	1.52	2.19	1.73	6.4
Russell	12	22	11	12	0.32	1.49	40.5	–17	43	157	32.1	1.57	1.73	2.14	1.98	6.8
Stride Rite	12	27	7	13	0.40	1.51	25.5	–12	54	164	108.7	1.71	2.08	3.35	2.37	6.9
VF	12	16	15	9	1.00	6.35	57.0	–51	73	244	49.2	2.72	1.69	2.15	2.38	21.4
APPLIANCES & HOME FURNISHINGS																
GROUP AVERAGE		**14**	**13**	**10**	**0.55**	**3.34**	**38.6**	**–34**	**47**	**142**	**54.2**	**1.52**	**1.34**	**1.78**	**1.47**	**16.1**
Armstrong World Industries	12	23	16	8	1.16	5.02	37.2	–45	73	265	81.5	3.17	2.87	3.60	2.55	16.7
Bassett Furniture Industries	12	31	32	12	1.25(c)	4.03	7.8	–18	36	84	23.4	2.30	2.52	2.23	2.63	9.2
Best Buy	02	6	8	7	0.00	0.00	8.3	2	30	34	65.5	0.69	0.82	0.54	0.94	25.0
Circuit City Stores	02	12	9	8	0.10	0.81	46.1	–42	83	247	124.0	1.70	1.58	2.55	1.64	20.3
Emerson Radio	03	2	3	15	0.00	0.00	35.8	–61	22	46	30.4	0.29	0.15	0.15	0.45	15.7
Kimball International	06	17	14	8	0.60	3.48	21.2	–17	22	50	16.4	1.62	2.05*	2.10	1.93	4.6
La-Z-Boy Chair	04	16	12	11	0.56	3.56	17.9	–11	19	46	10.5	1.58	1.48	1.65	1.67	12.1
Ladd Furniture	12	8	7	13	0.28	4.48	18.8	–45	49	70	56.0	0.89	0.49	0.65	0.65	18.6
Lancaster Colony	06	12	11	13	0.76	4.47	11.6	–34	46	58	73.4	1.81	1.36*	2.35	1.81	17.4
Leggett & Platt	12	23	18	9	0.84	3.59	17.7	–20	50	128	36.8	2.65	2.54	2.88	2.64	6.9
Masco	12	16	13	11	0.56	3.58	147.8	–39	56	371	45.2	1.42	1.43	1.64	1.57	13.6
Maytag	12	9	12	12	0.95	8.74	105.1	–44	36	257	56.8	1.27	1.08	1.25	1.08	21.7
Pier 1 Imports	02	4	5	8	0.16	3.66	34.2	–59	46	104	58.3	0.71	0.52	0.77	0.68	17.4
Toro	07	14	13	9	0.48	3.34	11.8	–32	55	72	53.3	2.10	1.55*	2.13	1.88	6.7
Whirlpool	12	21	22	11	1.10	4.73	69.5	–29	84	325	50.9	2.70	2.03	2.20	2.08	17.3
Zenith Electronics	12	6	15	NM	0.00	0.00	26.7	–51	42	111	85.1	–0.64	–1.00	NA	–0.69	34.8
BEVERAGES																
GROUP AVERAGE		**36**	**14**	**18**	**0.81**	**1.97**	**319.6**	**1**	**48**	**450**	**45.1**	**1.53**	**2.34**	**2.40**	**2.64**	**6.4**
Anheuser-Busch	12	40	13	14	1.00	2.50	281.9	4	52	594	35.7	2.68	2.95	3.60	3.27	2.7
Brown-Forman	04	18	11	13	2.08	2.99	28.0	–21	43	159	16.9	2.88	5.49	5.36	6.04	8.1
Coca-Cola	12	46	5	23	0.80	1.73	667.6	19	54	766	36.8	1.70	2.02	2.33	2.37	2.2
Coca-Cola Enterprises	12	15	12	30	0.05	0.33	16.1	–10	44	128	26.1	0.41	0.51	0.59	0.69	11.9
Coors (Adolph)	12	19	29	9	0.50	2.70	37.1	–6	30	136	102.5	0.36	1.71	0.78	1.88	11.0
PepsiCo	12	26	6	19	0.40	1.86	786.5	19	62	915	52.8	1.13	1.35	1.70	1.61	2.3
PERSONAL CARE																
GROUP AVERAGE		**47**	**13**	**15**	**1.27**	**2.98**	**59.8**	**–1**	**51**	**258**	**56.2**	**2.40**	**3.13**	**3.28**	**3.56**	**3.9**
Alberto-Culver	09	27	7	21	0.20	0.75	26.7	20	16	95	13.2	1.13	1.30*	1.9	1.48	1.8
Avon Products	12	27	5	10	1.00	3.65	56.9	–25	39	206	112.1	2.10	2.61	2.55	2.97	6.1
Chemed	12	20	11	10	1.96	9.80	10.3	–44	62	83	30.3	2.61	2.06	2.54	2.25	11.2
Clorox	06	36	15	13	1.44	4.01	54.0	–16	47	264	42.9	2.63	2.80*	3.26	2.63	1.9
Colgate-Palmolive	12	21	12	16	1.80	2.55	66.1	11	51	456	71.0	3.97	4.52	3.25	5.17	1.6
Ecolab	12	21	14	17	0.66	3.11	23.6	–35	71	145	60.1	2.10	1.89	0.51	2.16	5.9
Gillette	12	60	1	19	1.08	1.79	97.1	23	64	507	91.0	2.70	3.20	5.56	3.84	2.3
Helene Curtis Industries	02	25	15	18	0.20	0.81	9.7	–1	38	62	48.6	1.81	1.37	1.72	1.91	6.2
Intl. Flavors & Fragrances	12	75	23	18	2.16	2.88	38.1	10	55	305	46.6	3.65	4.07	5.02	4.52	1.7
NCH	04	52	26	10	1.00	1.91	8.4	–12	38	72	33.5	4.69	5.15	7.22	5.75	3.7
Procter & Gamble	06	83	20	18	2.00	2.41	346.6	18	46	803	41.8	3.56	4.49*	4.80	5.14	2.1
Stanhome	12	32	10	12	0.80	2.52	19.5	24	59	137	54.9	2.23	2.57	3.48	2.91	3.2
Tambrands	12	64	12	18	2.16	2.59	20.8	12	82	217	84.5	0.08	4.61	0.81	5.53	2.5
TOBACCO																
GROUP AVERAGE		**29**	**14**	**12**	**1.19**	**4.46**	**210.2**	**–7**	**47**	**365**	**35.6**	**2.18**	**2.48**	**2.86**	**2.94**	**6.3**
American Brands	12	41	18	11	1.54	3.80	198.6	18	52	474	50.8	3.26	3.68	4.37	4.13	4.5
Dibrell Brothers	06	19	13	9	0.80	4.21	6.6	–16	33	34	25.3	2.21	2.21*	2.23	2.67	7.8
Philip Morris	12	49	10	13	1.72	3.54	924.4	16	62	1159	53.1	3.18	3.83	4.68	4.68	1.4
Standard Commercial	03	10	17	10	0.52	5.33	8.2	–26	30	29	13.0	–0.40	1.03	0.75	1.15	NM
Universal	06	23	24	10	1.48	6.54	16.4	–38	53	105	34.1	3.19	2.22*	2.80	2.75	16.5
UST	12	20	4	17	NM	3.32	106.9	6	52	339	37.5	1.65	1.94	2.34	2.26	1.3
CONTAINERS & PACKAGING																
INDUSTRY AVERAGE		**23**	**18**	**10**	**0.66**	**3.45**	**32.5**	**–31**	**45**	**142**	**66.4**	**2.74**	**2.17**	**4.70**	**2.32**	**18.5**
GLASS, METAL & PLASTIC																
GROUP AVERAGE		**32**	**21**	**11**	**0.60**	**2.78**	**19.4**	**–24**	**47**	**134**	**54.7**	**2.49**	**2.74**	**2.85**	**3.21**	**8.0**
Ball	12	27	15	12	1.16	4.24	22.0	–19	54	126	28.4	1.44	2.31	1.63	2.49	7.7
Constar International	12	16	18	7	0.64	4.10	7.3	–54	53	68	87.9	2.45	2.23	2.54	2.44	6.5
Crown Cork & Seal	12	53	30	14	0.00	0.00	28.9	0	36	208	47.7	3.58	3.68	4.38	4.70	9.8
PAPER																
GROUP AVERAGE		**20**	**17**	**9**	**0.68**	**3.70**	**37.4**	**–33**	**44**	**144**	**70.8**	**2.84**	**1.96**	**5.49**	**1.99**	**23.1**
Boise Cascade	12	29	18	15	0.72	2.47	25.2	–16	39	151	22.5	1.80	1.96	2.50	2.29	4.0
Federal Paper Board	12	16	20	6	1.00	6.15	40.1	–37	67	212	64.2	4.52(b)	2.79	8.88	2.19	14.4
Gaylord Container	09	4	11	NM	0.00	0.00	15.5	–52	13	25	25.0	2.48	–1.47*	NA	–0.95	53.4
Longview Fibre	10	10	7	9	0.55(c)	5.57	54.0	–24	18	104	35.3	1.21	1.13*	2.01	1.21	20.2
Nashua	12	33	21	12	0.72	2.17	6.3	–36	70	64	274.5	1.84	2.75	2.91	3.75	0.0
Sonoco Products	12	29	12	12	0.92	3.23	43.3	–24	27	126	37.6	2.36	2.44	3.18	2.68	5.4
Stone Container	12	10	24	6	0.72	7.20	60.0	–58	45	176	64.7	4.76	1.77	12.71	1.09	52.0
Temple-Inland	12	26	26	7	0.80	2.82	55.0	–18	72	297	42.7	3.75	4.28	6.26	3.65	12.1

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THE POWER IS ON

INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P/E RATIO (BASED ON 1991 EST)	1990 DIV. ANNUAL RATE	YIELD	SHRS OUT. MILS	1990 MARKET VALUE CHANGE	INSTITUTIONAL HOLDINGS NUMBER		1990 % TURN-OVER	EARNINGS PER SHARE 1989 ACTUAL	1990 ANALYST EST	1991 ESTIMATES BASED ON 5 YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
8 DISCOUNT & FASHION RETAILING																
INDUSTRY AVERAGE		**19**	**12**	**15**	**0.44**	**2.12**	**88.1**	**-22**	**46**	**204**	**76.4**	**1.61**	**1.68**	**2.32**	**2.01**	**15.9**
Burlington Coat Factory	06	10	12	7	0.00	0.00	17.8	-40	31	42	14.7	NA	1.35*	1.51	1.49	8.4
Carter Hawley Hale Stores	07	4	-7	NM	0.00	0.00	29.8	41	27	83	41.6	0.34	-0.37*	NA	0.28	149.8
Charming Shoppes	01	10	6	12	0.12	1.22	50.0	7	57	143	95.5	0.72	0.81	0.85	0.93	5.0
Consolidated Stores	01	4	3	15	0.00	0.00	45.6	4	41	72	59.2	-0.15	0.26	0.30	0.46	19.9
Costco Wholesale	08	48	11	34	0.00	0.00	34.6	50	51	147	169.0	0.97	1.40*	2.87	1.92	3.5
Dayton Hudson	01	54	26	10	1.32	2.43	71.0	-14	80	479	81.7	5.37	5.53	6.22	6.25	5.5
Dillard Department Stores	01	88	32	17	0.20	0.23	35.8	26	49	258	49.8	4.36	5.30	6.14	6.19	6.5
Dollar General	01	8	7	10	0.20	2.42	18.3	-20	24	55	74.4	0.68	0.82	0.72	1.00	10.5
Edison Brothers Stores	01	21	15	8	1.04	4.98	22.3	-27	50	133	66.9	3.04	2.63	3.55	3.14	11.8
Equitable of Iowa	12	14	39	3	1.20	8.57	7.1	-54	30	36	24.9	4.14	4.32	6.46	4.86	14.3
Family Dollar Stores	08	10	7	10	0.40	3.86	27.7	-2	48	94	42.7	0.78	1.04*	0.90	1.18	3.9
Fingerhut	12	17	13	9	0.16	0.94	23.0	NA	90	36	NA	1.58	1.91	NA	2.13	2.2
Gap	01	32	5	17	0.50	1.57	70.8	24	44	236	104.1	1.39	1.87	2.24	2.18	4.6
Genesco	01	3	6	15	0.00	0.00	22.7	-55	45	103	52.5	0.83	0.22	0.58	0.60	30.4
Hechinger	01	7	12	8	0.16	2.17	35.9	-42	28	79	48.7	0.88	0.89	1.04	1.03	13.0
Hills Department Stores	01	2	-1	NM	0.00	0.00	19.1	-62	19	26	16.7	0.15	-0.16	NA	0.17	69.3
Home Depot	01	36	5	27	0.12	0.34	116.8	49	64	384	110.6	0.95	1.32	2.61	1.68	6.3
Home Shopping Network	08	4	2	12	0.00	0.00	90.1	-43	20	74	53.0	-0.25	0.35*	0.35	0.50	14.1
Jamesway	01	2	9	8	0.08	3.37	13.8	-63	33	40	94.4	0.41	0.29	0.30	0.44	40.5
K mart	01	27	25	7	1.72	6.46	199.8	24	77	646	57.3	1.61	3.84	3.12	4.10	5.7
Lands' End	01	13	6	21	0.20	1.50	19.5	-36	22	63	41.5	1.45	0.64	0.73	1.10	14.5
Limited	01	16	4	14	0.24	1.51	360.1	-9	43	437	55.8	0.96	1.10	1.33	1.31	6.2
Lowe's	01	21	18	10	0.52	2.52	37.5	-30	54	231	115.3	2.01	2.13	2.23	2.41	10.8
May Department Stores	01	43	19	11	1.58	3.71	124.7	-20	65	541	46.3	3.75	4.05	4.48	4.54	4.6
Melville	12	38	13	10	1.42	3.72	103.0	-14	75	460	47.5	3.56	3.67	4.47	4.14	4.7
Mercantile Stores	01	28	30	8	0.97	3.48	36.8	-29	40	191	26.2	3.54	3.69	4.14	3.91	2.8
Merry-Go-Round Enterprises	01	19	6	12	0.10	0.52	23.2	41	65	107	128.2	1.04	1.59	1.80	1.83	8.2
Meyer (Fred)	01	13	12	9	0.00	0.00	22.5	-32	28	55	34.8	-0.28	1.44	1.66	1.68	13.6
Neiman Marcus Group	07	13	-1	NM	0.20	1.50	32.7	-17	31	73	29.3	0.03	0.12*	NA	0.37	26.7
Nordstrom	01	24	9	17	0.30	1.28	81.7	-37	41	230	149.9	1.41	1.40	1.93	1.70	10.0
Penney (J. C.)	01	44	30	8	2.64(c)	6.02	117.6	-41	61	601	58.5	6.31	5.20	7.68	5.73	11.0
Pep Boys-Manny, Moe & Jack	01	10	6	13	0.12	1.26	55.6	-20	49	148	74.2	0.63	0.72	0.82	0.85	6.8
Petrie Stores	01	14	14	27	0.20	1.39	46.8	-33	22	109	40.3	0.69	0.52	0.39	0.71	18.9
Pic 'N' Save	01	8	6	19	0.00(c)	0.00	35.2	-39	59	105	195.3	0.87	0.44	0.57	0.87	27.7
Price	08	38	13	15	0.00	0.00	48.8	-19	55	199	155.3	2.30	2.47*	3.19	2.80	4.0
QVC Network	01	4	12	NM	0.00	0.00	17.4	-70	14	39	84.1	0.35	-0.23	NA	0.73	63.4
Rose's Stores	01	3	11	8	0.2[illegible]	6.46	18.9	-51	15	28	18.3	0.45	0.41	0.35	0.47	16.3
Ross Stores	01	6	5	6	0.00	0.00	23.0	-61	42	60	151.2	1.25	0.91	1.65	1.16	10.7
Sears, Roebuck	12	26	36	8	2.00	7.66	343.1	-31	56	601	42.9	4.12	3.34	3.45	3.88	13.9
Service Merchandise	12	5	-1	4	0.00	0.00	52.3	-48	53	100	79.1	1.39	1.13	2.56	1.38	9.8
Spiegel	12	13	8	9	0.38(c)	2.90	52.0	-35	8	54	23.0	1.41	1.40	2.25	1.68	6.0
Strawbridge & Clothier	01	19	26	5	1.10(d)	5.79	9.1	-38	31	69	33.6	3.41	3.50	3.78	3.80	7.4
TJX	01	11	3	9	0.46	4.09	69.8	-27	85	218	59.7	1.16	1.20	1.02	1.39	5.0
Toys 'R' Us	01	23	6	18	0.00	0.00	288.2	-2	67	607	66.3	1.09	1.26	1.70	1.52	5.0
U. S. Shoe	01	8	12	8	0.52	6.21	45.0	-58	77	187	117.4	1.10	1.04	0.72	1.50	22.6
Waban	01	9	10	13	0.00	0.00	28.6	-22	31	67	133.1	1.01	0.73	NA	0.97	7.4
Wal-Mart Stores	01	30	4	26	0.14	0.46	1132.6	34	32	732	32.4	0.95	1.17	1.64	1.42	3.8
Wholesale Club	01	20	5	23	0.00	0.00	7.8	32	55	55	296.6	0.84	0.88	NA	1.14	5.8
Woolworth	01	29	17	11	1.04	3.56	129.8	-8	65	446	71.9	2.56	2.74	3.31	3.05	4.8
9 ELECTRICAL & ELECTRONICS																
INDUSTRY AVERAGE		**28**	**21**	**14**	**0.76**	**2.42**	**60.4**	**-16**	**62**	**250**	**72.0**	**2.04**	**2.00**	**4.53**	**2.49**	**16.4**
ELECTRICAL PRODUCTS GROUP AVERAGE		**29**	**16**	**11**	**1.08**	**2.98**	**81.5**	**-16**	**54**	**302**	**46.4**	**2.32**	**2.06**	**3.40**	**2.59**	**9.6**
Cooper Industries	12	41	26	15	1.08	2.65	109.7	3	61	465	45.9	2.51	2.79	3.30	3.16	4.3
Emerson Electric	09	35	[illegible]	13	1.32	3.76	223.3	-10	63	663	37.2	2.63	2.75*	3.05	2.93	2.7
Genlyte Group	12	4	4	6	0.00	0.00	12.7	-61	33	39	59.6	0.95	0.72	NA	0.80	26.5
Hubbell	12	41	16	13	1.48	3.64	28.1	-7	48	201	17.2	2.78	3.04	3.47	3.28	1.9
MagneTek	06	9	6	6	0.00	0.00	22.9	8	20	36	28.2	0.97	1.40*	2.65	1.48	8.5
National Service Industries	08	26	13	13	0.92	3.52	49.5	-6	53	197	19.6	1.92	2.02*	2.22	2.16	2.4
Raychem	06	20	20	NM	0.32	1.57	36.9	-34	69	224	88.4	1.04	-3.12*	NA	0.59	31.1
Square D	12	48	26	10	2.20	4.63	22.9	-13	76	271	77.3	4.06	4.61	4.82	4.57	6.3
Thomas & Betts	12	45	20	15	2.12	4.74	17.0	-10	66	219	34.8	3.16	2.94	3.61	3.32	9.1
Westinghouse Electric	12	27	16	8	1.40	5.26	291.5	-28	52	707	56.4	3.16	3.46	4.10	3.64	3.3
[illegible]		**38**	**36**	**19**	**0.76**	**2.24**	**49.3**	**-6**	**70**	**260**	**79.4**	**3.57**	**3.59**	**4.36**	**4.15**	**6.8**
[illegible]	12	33	19	12	0.75	2.28	31.1	7	55	183	60.1	2.65	3.04	3.18	3.42	1.8
GM Hughes Electronics	12	17	92	10	0.72	4.14	87.8	-32	79	84	3.8	1.94	1.79	2.21	1.82	3.5
Harris	06	20	27	6	1.04	5.33	39.2	-42	74	262	68.0	3.00	3.30*	3.33	2.71	16.0
Litton Industries	07	77	58	11	0.00	0.00	22.4	-9	75	177	67.4	7.05	7.26*	7.77	7.44	1.8
[illegible]	03	33	24	10	0.88	2.65	25.6	12	72	201	82.3	3.08	3.49	3.62	4.12	6.3

Footnotes on page 151

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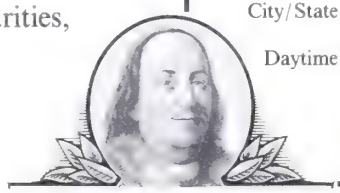

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COMPANY	Fr	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST	1990 DIVIDEND RATE	YIELD	SHRS. OUT. MILS	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS NUMBER		1990 TURNOVER %	EARNINGS PER SHARE 1989 ACTUAL	1990 ANALYST EST	1991 ESTIMATES BASED ON 5-YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
Motorola	12	51	32	12	0.76	1.51	131.7	–13	72	719	117.7	3.83	4.10	7.86	4.62	9.6
Raytheon	12	70	42	8	2.40	3.45	65.3	0	73	511	73.0	8.01	8.59	10.30	9.26	2.2
SCI Systems	06	6	9	58	0.00	0.00	21.0	–26	56	86	131.4	1.00	0.11*	0.27	0.97	8.3
Varian Associates	09	32	20	50	0.26	0.81	19.4	49	75	113	110.4	1.53	0.64*	0.75	2.99	12.0
(c) **INSTRUMENTS**																
GROUP AVERAGE		**25**	**21**	**12**	**0.83**	**3.30**	**29.6**	**–25**	**67**	**175**	**71.6**	**1.22**	**1.47**	**3.62**	**1.69**	**16.6**
Ametek	12	10	5	10	0.64	6.65	43.8	–29	48	148	30.4	0.87	0.92	0.92	1.05	10.2
Beckman Instruments	12	14	11	11	0.28	2.02	28.8	–21	56	145	59.3	1.47	1.28	NA	1.45	5.0
General Signal	12	34	26	9	1.80	5.37	19.3	–30	79	213	65.0	4.12	3.87	3.63	3.98	7.7
Henley Group	12	17	54	NM	0.00	0.00	19.8	–70	56	69	165.4	–10.45	–6.00	NA	–7.00	NM
Honeywell	12	90	48	10	3.00	3.33	37.3	–3	74	406	117.5	12.92	8.96	16.11	9.49	3.9
Imo Industries	12	8	19	7	0.50	5.97	17.6	–49	63	94	51.7	1.88	1.27	1.52	1.37	27.6
Johnson Controls	09	23	20	11	1.20	5.16	39.4	–28	59	201	46.8	2.42(b)	2.05*	2.23	2.40	10.9
Millipore	12	33	16	16	0.44	1.33	27.8	24	70	214	54.7	1.90	2.02	2.44	2.29	2.4
Perkin-Elmer	07	22	12	20	0.68	3.06	33.2	–25	76	201	80.0	1.08	1.10*	0.94	1.55	4.0
Tektronix	05	17	14	12	0.60	3.45	29.1	–2	74	147	72.9	–3.19	1.46	1.17	1.78	31.9
Teradyne	12	7	10	NM	0.00	0.00	29.7	–39	75	84	44.1	0.35	–0.70	NA	0.27	62.3
(d) **SEMICONDUCTORS**																
GROUP AVERAGE		**19**	**12**	**15**	**0.26**	**0.70**	**89.0**	**–15**	**57**	**280**	**96.2**	**1.12**	**0.83**	**8.94**	**1.57**	**35.5**
Advanced Micro Devices	12	4	8	NM	0.00	0.00	82.4	–44	50	183	124.4	0.44	–0.40	NA	0.21	114.3
AMP	12	42	17	15	1.36	3.22	106.0	–5	72	507	56.8	2.63	2.75	4.12	2.99	7.3
Analog Devices	10	7	8	NM	0.00	0.00	47.2	–34	65	88	42.0	0.58	–0.16	NA	0.64	24.1
Intel	12	38	17	12	0.00	0.00	199.6	18	76	698	222.4	2.07	3.24	29.49	3.59	6.6
LSI Logic	12	7	8	17	0.00	0.00	42.1	–3	47	86	59.1	–0.60	0.39	0.58	0.70	29.2
Molex	06	22	10	18	0.02	0.09	49.7	9	21	139	51.8	1.14	1.24*	1.58	1.35	7.1
National Semiconductor	05	4	6	NM	0.00	0.00	103.3	–46	49	162	106.2	–0.38	–0.12	NA	0.60	38.0
Texas Instruments	12	32	23	NM	0.72	2.28	81.7	–12	77	373	107.0	3.04	–0.28	NA	2.53	57.0
10 **FOOD**																
INDUSTRY AVERAGE		**28**	**10**	**47**	**0.60**	**1.94**	**63.5**	**–5**	**39**	**169**	**39.2**	**1.48**	**1.85**	**2.38**	**2.20**	**7.0**
(a) **FOOD DISTRIBUTION**																
GROUP AVERAGE		**20**	**12**	**13**	**0.47**	**2.10**	**30.3**	**–18**	**44**	**130**	**48.6**	**1.10**	**1.58**	**2.05**	**1.90**	**7.1**
Finevest Foods	12	2	3	NM	0.00	0.00	10.6	–74	17	32	32.2	–1.79	–0.08	NA	0.38	9.4
Fleming	12	33	25	11	1.12	3.37	30.5	12	68	207	74.8	2.54	2.91	2.74	3.31	2.3
Nash Finch	12	17	15	10	0.68(c)	3.94	10.9	–31	23	38	32.3	1.21	1.73	1.71	1.98	2.9
Richfood Holdings	04	9	5	11	0.00	0.00	10.4	14	4	13	80.5	0.35	0.83	NA	1.25	5.7
Rykoff-Sexton	04	16	16	12	0.60	3.87	11.6	–34	55	64	50.6	0.96	1.28	1.40	1.50	17.6
Super Food Services	08	17	11	10	0.34	2.03	10.8	–17	64	78	42.7	1.47	1.60*	1.87	1.87	16.1
Super Valu Stores	02	23	12	10	0.66	2.90	75.2	–21	71	300	39.1	1.97	2.17	2.52	2.44	5.2
Sysco	06	32	9	22	0.20	0.64	92.1	0	55	334	44.4	1.19	1.45*	1.66	1.74	1.6
Wetterau	03	30	10	13	0.64	2.12	21.0	–10	37	104	40.5	2.00	2.31	2.46	2.63	3.3
(b) **FOOD PROCESSING**																
GROUP AVERAGE		**36**	**11**	**78**	**0.82**	**2.32**	**80.1**	**2**	**41**	**230**	**40.2**	**1.87**	**2.18**	**2.65**	**2.59**	**5.5**
Archer Daniels Midland	06	23	12	14	0.10(d)	0.43	300.4	6	50	516	53.3	1.44	1.63*	2.12	1.84	5.0
Borden	12	28	12	11	1.06	3.75	147.9	–18	49	455	42.3	–0.41	2.49	3.02	2.76	4.2
Campbell Soup	07	57	13	1900	1.00	1.75	129.3	–3	31	309	36.4	0.10	0.03*	0.03	2.96	2.2
Castle & Cooke	12	32	15	17	0.00	0.00	59.3	–8	48	158	67.5	1.60	1.93	2.13	2.14	13.6
Chiquita Brands International	12	29	14	13	0.40	1.40	40.6	72	77	77	46.5	1.70	2.23	3.16	2.57	1.3
ConAgra	05	35	11	16	0.69	1.98	134.4	35	36	320	33.9	1.87	2.16	2.51	2.57	4.6
CPC International	12	81	16	17	2.00	2.48	75.4	9	59	502	44.7	4.22	4.84	6.90	5.48	1.1
Curtice-Burns Foods	06	15	12	17	0.64	4.41	8.5	–43	27	39	19.5	1.78(b)	0.87*	1.31	1.27	12.1
Dean Foods	05	37	14	14	0.74	1.98	27.1	12	33	126	24.6	2.29	2.64	2.95	3.01	4.3
Flowers Industries	06	14	6	14	0.65	4.68	34.4	–27	41	113	34.0	0.85	0.98*	1.07	1.05	8.4
General Mills	05	47	6	18	1.28	2.70	164.4	30	62	544	49.6	2.28	2.62	3.29	2.99	1.5
Gerber Products	03	58	10	18	1.20(c)	2.06	37.7	22	63	273	71.3	2.50	3.32	4.17	3.77	1.9
Heinz (H. J.)	04	35	7	16	0.96	2.76	257.0	0	52	507	26.9	1.90	2.13	2.47	2.38	1.7
Hershey Foods	12	35	14	16	0.90(c)	2.57	90.2	–2	29	301	32.1	1.90	2.20	2.35	2.49	1.6
Hormel (Geo. A.)	10	17	7	17	0.26	1.50	76.8	3	19	84	11.5	0.92	1.01*	1.20	1.18	3.2
Hudson Foods	09	7	9	12	0.12	1.71	14.4	–30	7	28	21.0	1.70	0.60*	0.68	0.83	30.0
IBP	12	16	11	16	0.60	3.75	47.3	4	32	94	46.3	0.74	1.03	NA	1.31	15.2
International Multifoods	02	34	24	14	1.18(c)	3.43	12.9	19	60	78	45.6	1.96	2.50	2.60	2.96	6.3
Kellogg	12	72	15	18	1.92	2.66	120.6	6	72	373	30.1	3.46	4.11	4.76	4.61	2.2
McCormick	11	23	9	16	0.48	2.09	39.9	–14	50	137	71.8	1.20	1.46	1.63	1.71	2.7
Pilgrim's Pride	09	6	4	8	0.06	1.04	22.6	–16	6	19	12.5	0.90	0.69*	0.89	0.93	3.8
Pioneer Hi-Bred International	08	36	21	16	1.16	3.20	31.1	–19	55	130	61.4	2.58	2.33*	2.05	3.08	8.1
Quaker Oats	06	49	13	17	1.56	3.20	75.6	–16	48	379	58.6	2.56	2.93*	3.35	3.14	4.2
Ralston Purina	09	98	11	15	1.85	1.90	56.3	8	46	326	49.8	5.32	6.46*	7.79	7.30	3.6
[illegible]	06	30	10	16	0.94	3.12	230.6	–10	43	527	54.4	1.75	1.91*	2.29	2.14	1.4
Savannah Foods & Industries	12	24	7	13	0.36	1.52	26.9	–14	40	60	35.7	1.53	1.83	2.11	1.98	4.4
Tyson Foods	09	30	8	17	0.04	0.13	66.0	21	13	99	54.9	1.55	1.81*	2.40	2.09	4.4
Universal Foods	09	31	9	16	0.76	2.46	25.4	30	57	124	46.8	1.60	1.95*	2.34	2.19	1.2
WLR Foods	06	15	11	9	0.30	2.07	10.5	–8	2	12	9.5	1.65	1.67*	1.28	1.76	10.2
Wrigley (Wm.) Jr.	12	54	11	18	1.48	2.75	39.2	0	22	181	14.4	2.70	2.95	3.99	3.26	1.4

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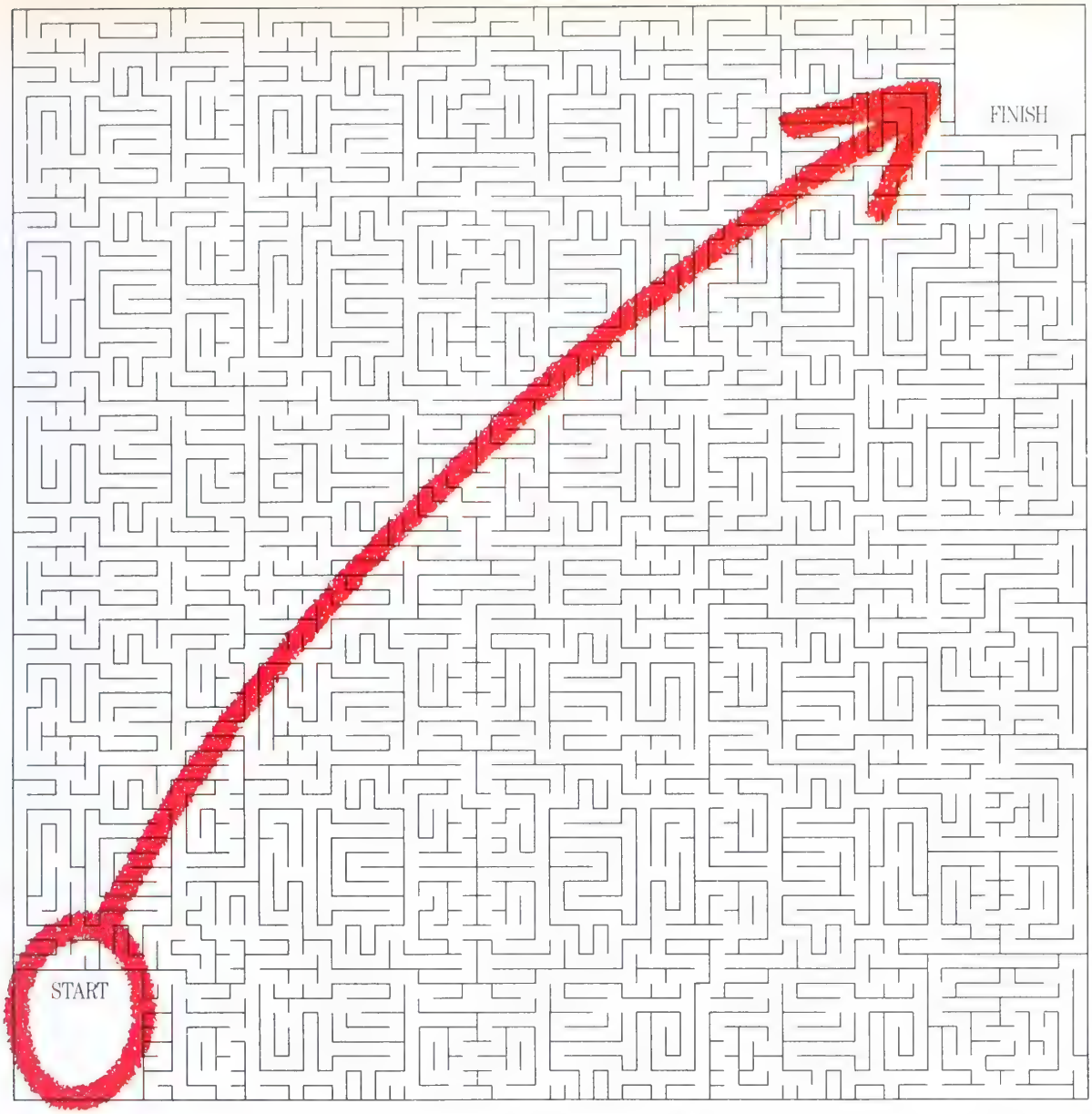

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COMPANY	FY	PRESENT SHARE PRICE	BOOK VALUE PER SHARE	P/E RATIO LAST EST	DIV. DEND RATE	YIELD	SHRS OUT MILS	5YR MARKET VALUE CHANGE	INSTITUTIONAL HOLDINGS NUMBER	1990 TURN-OVER	EARNINGS PER SHARE 1991 ESTIMATES NEXT ACTUAL	1991 ANALYST EST	BASED ON 5-YEAR TREND	FROM ANALYSTS CON-SENSUS	FROM ANALYSTS VARIA-TION
(c) **FOOD RETAILING**															
GROUP AVERAGE		**21**	**8**	**15**	**0.34**	**1.34**	**54.0**	**-10**	**33**	**98**	**33.3**	**1.09**	**1.49**	**2.00**	**1.76**	**9.2**
Albertson's	01	32	7	19	0.48	1.49	133.8	16	40	330	32.0	1.47	1.71	2.16	1.98	2.7
American Stores	01	52	36	12	1.12	2.17	34.5	-9	76	228	53.0	3.45	4.44	3.55	5.22	13.3
Bruno's	06	16	4	22	0.18	1.13	81.7	9	28	108	37.3	0.59	0.74*	0.82	0.87	2.3
Casey's General Stores	04	6	7	9	0.05	0.80	11.4	-44	39	39	109.6	0.73	0.72	0.76	0.80	12.5
Eagle Food Centers	01	7	5	9	0.00	0.00	11.5	-63	78	37	51.3	0.92	0.77	NA	0.88	12.1
Food Lion	12	14	2	25	0.13	1.00	322.2	24	5	78	10.6	0.43	0.54	0.73	0.66	3.4
Giant Food	02	25	9	13	0.60	2.38	59.2	-13	27	186	25.3	1.80	2.02	2.56	2.24	4.0
Great Atlantic & Pacific Tea	02	40	31	10	0.80	2.03	38.2	-33	35	195	36.5	3.84	4.07	5.70	4.48	5.1
Hannaford Brothers	12	35	13	16	0.44	1.26	19.8	7	34	78	14.6	1.91	2.16	2.69	2.46	2.7
Ingles Markets	09	8	7	13	0.22	2.84	17.9	-16	6	24	56.1	0.89	0.60	0.78	0.88	3.9
Kroger	12	13	-35	23	0.00	0.00	85.0	-12	30	196	43.5	-0.23	0.56	0.30	1.08	16.9
Marsh Supermarkets	03	15	10	9	0.40	2.62	7.8	-14	52	31	28.7	1.38	1.64	1.85	1.85	NM
National Convenience Stores	06	4	4	NM	0.00(c)	0.00	22.1	-49	53	36	22.2	-0.40	-0.11*	NA	0.22	51.4
Riser Foods	06	9	4	13	0.00	0.00	8.0	19	21	31	28.0	-0.90	0.68*	NA	1.19	12.1
Ruddick	09	20	18	9	0.70(c)	3.48	9.8	-29	25	42	20.3	1.87(b)	2.17*	2.33	2.31	3.9
Safeway	12	13	3	15	0.00	0.00	79.2	NA	5	25	NA	0.05	0.83	NA	1.08	7.4
Schultz Sav 'O Stores	12	13	12	9	0.12	0.94	2.9	-26	32	25	20.8	1.09	1.47	1.62	1.55	3.2
Smith's Food & Drug Centers	12	28	10	21	0.28	1.01	25.3	16	22	63	24.3	1.16	1.34	NA	1.70	2.0
Vons	12	19	6	19	0.00	0.00	38.8	-2	20	77	30.0	-0.65	1.00	NA	1.33	17.7
Weis Markets	12	30	13	15	0.60	2.01	44.9	-1	48	61	5.6	1.91	2.00	2.28	2.13	4.9
Winn-Dixie Stores	06	36	11	19	1.08	2.99	79.3	11	20	175	16.8	1.68	1.93*	1.93	2.09	1.7
11 **FUEL**																
INDUSTRY AVERAGE		**36**	**20**	**16**	**1.21**	**3.36**	**151.0**	**-5**	**52**	**362**	**53.6**	**2.20**	**2.54**	**3.64**	**2.95**	**16.5**
a. **COAL**																
GROUP AVERAGE		**21**	**21**	**10**	**0.44**	**2.15**	**23.3**	**-24**	**50**	**114**	**40.8**	**2.37**	**2.46**	**3.09**	**2.74**	**13.4**
Nacco Industries	12	25	39	5	0.60	2.41	8.9	-55	60	123	41.7	6.08	4.91	6.45	4.66	33.0
Nerco	12	18	15	9	0.64	3.51	39.0	-18	14	75	12.0	1.90	2.02	2.37	2.29	4.6
Pittston	12	19	12	15	0.20	1.03	37.3	-10	76	165	68.8	0.10	1.27	1.91	2.04	2.7
Westmoreland Coal	12	20	20	12	0.32(c)	1.64	8.3	-14	50	94	40.8	1.39	1.65	1.62	1.96	13.1
(b) **OIL & GAS**																
GROUP AVERAGE		**39**	**21**	**16**	**1.42**	**3.77**	**175.4**	**-5**	**52**	**388**	**50.9**	**2.41**	**2.76**	**3.52**	**3.17**	**18.3**
Amerada Hess	12	50	35	13	0.60	1.20	81.0	3	62	383	70.8	5.87	3.94	5.78	3.74	23.5
Amoco	12	53	28	14	2.04	3.86	505.3	-4	45	927	31.5	3.12	3.65	3.83	4.26	7.0
Ashland Oil	09	30	22	9	1.00	3.35	58.0	-25	55	237	50.8	1.55	3.27*	2.64	3.29	13.1
Atlantic Richfield	12	109	44	12	5.00	3.89	161.3	13	56	883	44.2	11.26	10.84	22.56	11.92	12.5
Burlington Resources	12	43	22	31	0.70	1.64	139.9	-16	62	515	57.7	0.99	1.39	NA	1.80	16.0
Chevron	12	70	41	13	3.10	4.44	353.3	3	42	779	36.0	0.73	5.42	2.43	5.88	6.8
Coastal	12	34	18	16	0.40	1.16	103.5	4	66	334	45.5	1.90	2.20	2.52	2.73	8.4
Crown Central Petroleum	12	21	32	8	0.80(c)	3.90	9.8	-34	9	27	13.4	2.09(b)	2.53	5.01	3.54	7.0
Diamond Shamrock	12	21	14	7	0.48(c)	2.33	24.5	-17	76	113	92.0	2.20	2.76	6.38	2.44	10.5
Exxon	12	51	24	13	2.68	5.29	1247.1	1	37	960	22.1	2.32	3.84	3.23	4.41	6.9
Kerr-McGee	12	44	30	15	1.44	3.25	49.6	-13	66	337	67.4	2.58	2.88	2.60	3.45	11.6
Louisiana Land & Exploration	12	47	15	29	1.00	2.12	28.2	7	76	221	48.7	1.60	1.62	2.54	2.18	24.8
Mapco	12	45	10	10	1.00	2.23	30.2	-2	77	188	74.4	3.04	4.33	4.61	4.57	3.5
Maxus Energy	12	10	0	NM	0.00	0.00	100.1	-3	65	249	72.6	-0.86	-0.40	NA	0.53	65.0
Mitchell Energy & Development	01	22	13	25	0.32	1.48	47.0	-1	23	79	19.0	0.65	0.86	0.29	1.15	32.5
Mobil	12	59	40	14	2.90	4.93	405.4	-7	50	920	39.8	4.40	4.27	5.38	5.18	9.8
Murphy Oil	12	38	25	16	1.00	2.66	33.9	-9	61	176	33.2	1.37	2.40	1.57	2.83	17.9
Occidental Petroleum	12	23	21	19	2.50	11.11	295.4	-17	30	434	52.1	0.92	1.21	0.92	1.39	32.2
Oryx Energy	12	44	6	31	1.20	2.74	79.6	-25	73	298	42.3	0.51	1.42	NA	2.06	32.7
Pennzoil	12	67	31	26	3.00	4.49	40.1	-17	64	303	45.2	6.06	2.61	3.32	3.48	19.2
Phillips Petroleum	12	27	10	12	1.12	4.09	259.4	15	42	447	52.2	0.90	2.22	1.40	2.50	11.9
Quaker State	12	10	11	15	0.80	8.10	27.1	-31	44	100	53.1	0.44	0.65	0.33	0.83	27.0
Sun	12	32	31	13	1.80	5.69	106.5	-23	54	298	26.1	0.92	2.47	0.45	3.00	18.7
Texaco	12	60	31	11	3.20	5.38	258.1	-2	63	840	68.7	9.12	5.30	7.44	5.96	9.5
Tosco	12	17	11	6	0.60	3.58	29.9	38	17	84	128.1	1.24(b)	2.99	2.23	2.83	13.5
Union Texas Petroleum	12	5	4	24	0.20	1.10	84.9	1	13	82	18.5	1.49	0.75	0.62	1.13	29.1
Unocal	12	29	11	17	0.70	2.45	234.2	-4	61	533	60.5	1.53	1.70	0.92	2.12	16.2
Unocal Exploration	12	13	3	14	1.44(c)	11.32	253.1	-24	NA	NA	2.3	1.03	0.92	1.02	0.75	28.3
Valero Energy	12	20	16	9	0.28	1.41	40.7	49	57	127	109.0	0.98	2.10	1.37	2.00	16.6
c **PETROLEUM SERVICES**																
GROUP AVERAGE		**33**	**14**	**22**	**0.68**	**2.24**	**118.3**	**8**	**53**	**404**	**75.2**	**1.09**	**1.54**	**4.74**	**2.00**	**9.8**
Baker Hughes	09	28	10	26	0.46	1.67	132.5	18	74	465	91.9	0.64	1.06*	0.63	1.54	11.8
[illegible]	12	6	5	23	0.20	3.14	73.9	-32	0	1	52.2	0.25	0.27	NA	0.47	13.0
[illegible]ustries	12	41	22	19	0.60	1.46	21.8	44	66	95	61.0	1.41	2.20	3.49	2.60	4.5
Dresser Industries	10	20	12	15	0.60(c)	2.94	136.1	-9	67	451	86.0	1.21	1.36	14.26	1.67	8.4
Halliburton	12	48	21	25	1.00	2.10	106.8	12	66	584	99.6	1.26	1.89	2.70	2.58	12.4
Schlumberger	12	57	13	23	1.20	2.11	238.4	16	47	829	60.2	1.77	2.47	2.60	3.15	8.7

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST	1990 DIV. DEND RATE	YIELD	SHRS. OUT. MILS.	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURN-OVER %	EARNINGS PER SHARE 1989 ACTUAL	1991 ESTIMATES 1990 ANALYST EST	1991 ESTIMATES BASED ON 5 YEAR TREND	1991 ESTIMATES FROM ANALYSTS CON-SENSUS	1991 ESTIMATES FROM ANALYSTS VARIA-TION %
HEALTH CARE																
INDUSTRY AVERAGE		**38**	**12**	**21**	**0.78**	**1.73**	**107.6**	**13**	**54**	**333**	**72.0**	**1.95**	**2.25**	**2.85**	**2.69**	**6.1**
DRUG DISTRIBUTION																
GROUP AVERAGE		**25**	**11**	**14**	**0.47**	**1.65**	**25.9**	**3**	**44**	**127**	**61.8**	**1.43**	**1.53**	**1.89**	**1.86**	**6.6**
Bergen Brunswig	08	27	13	15	0.40	1.50	34.2	10	63	163	39.2	1.85	1.82*	2.15	2.00	1.4
Lindley Western Industries	12	11	8	12	0.02	0.14	6.3	4	41	30	70.6	0.49	0.86	0.58	1.07	7.0
Cardinal Distribution	03	27	10	22	0.08	0.30	13.3	38	45	68	76.1	0.99(b)	1.24	1.30	1.52	3.0
Drug Emporium	02	7	4	10	0.12	1.63	13.0	-9	8	25	72.2	0.63	0.71	0.83	0.81	4.4
Durr-Fillauer Medical	12	27	12	16	0.30	1.12	10.1	13	63	77	75.0	1.48(b)	1.66	2.04	1.88	2.3
Kay's	01	8	5	9	0.20	2.62	15.3	-27	20	45	24.8	0.68	0.82	1.35	0.96	0.7
Longs Drug Stores	01	36	18	12	1.04	2.91	20.4	-19	35	162	19.2	3.01	3.10	3.79	3.37	4.8
McKesson	03	31	14	13	1.60	5.10	38.0	-16	58	218	49.2	2.23	2.47	2.49	2.70	7.6
Medco Containment Services	06	30	6	NM	0.04	0.14	47.6	65	70	161	167.4	0.61	-0.16*	NA	0.93	2.6
Perry Drug Stores	10	5	5	13	0.00	0.00	10.2	-39	13	21	55.1	0.70	0.40	0.42	0.80	43.5
Rite Aid	02	35	18	13	0.90	2.54	41.5	6	67	220	47.7	1.97	2.65	2.70	3.03	1.2
Walgreen	08	50	15	18	0.92	1.83	61.5	8	48	339	45.4	2.50	2.83*	3.14	3.25	0.9
DRUGS & RESEARCH																
GROUP AVERAGE		**56**	**11**	**18**	**1.43**	**2.51**	**210.6**	**28**	**55**	**604**	**61.3**	**2.60**	**3.18**	**4.07**	**3.76**	**3.2**
Allergan	12	14	7	12	0.28	2.04	67.3	-21	75	193	64.0	0.86	1.17	NA	1.35	6.8
American Home Products	12	52	8	13	2.15	4.15	313.8	-3	62	830	32.5	3.54	3.92	4.34	4.35	1.4
Bristol-Myers Squibb	12	66	10	20	2.12	3.22	525.7	17	61	1231	45.1	1.43	3.29	2.69	3.99	1.5
Carter-Wallace	03	53	24	14	0.92	1.74	15.4	-7	41	106	33.3	3.30	3.68	4.38	4.21	2.3
Lilly (Eli)	12	74	13	19	1.64	2.22	266.8	3	73	823	57.2	3.25	3.93	4.28	4.71	2.0
Marion Merrell Dow	12	33	4	20	0.80	2.40	277.6	128	12	212	17.0	1.46	1.71	3.04	1.98	4.5
Merck	12	86	10	19	2.24	2.60	388.5	9	55	1049	48.8	3.78	4.53	6.28	5.34	1.6
Pfizer	12	81	30	17	2.40	2.97	165.2	16	68	784	87.5	4.04	4.73	4.96	5.42	2.6
Rhone-Poulenc Rorer	12	62	7	21	0.84(c)	1.35	66.7	180	27	151	111.7	2.67	2.89	5.16	4.15	9.8
Schering-Plough	12	47	10	19	1.12	2.39	226.9	10	65	704	50.4	2.09	2.50	3.10	2.95	1.5
Syntex	07	60	7	20	1.60	2.66	112.1	21	54	563	89.4	2.67	3.05*	3.98	3.58	2.8
Upjohn	12	38	8	16	1.00	2.67	177.0	-6	60	528	96.8	1.67	2.35	2.56	2.65	3.4
Warner-Lambert	12	67	10	19	1.52	2.26	134.3	16	65	679	63.4	3.05	3.61	4.06	4.21	1.9
HEALTH CARE SERVICES																
GROUP AVERAGE		**19**	**9**	**37**	**0.25**	**0.72**	**49.0**	**2**	**53**	**161**	**101.4**	**0.95**	**1.38**	**1.78**	**1.64**	**11.6**
Beverly Enterprises	12	8	6	41	0.00	0.00	66.0	60	48	139	141.6	-1.96	0.19	NA	0.35	18.4
CHP International	06	14	6	13	0.00	0.00	25.2	-31	61	107	156.6	1.03	1.10*	1.56	1.51	6.0
Hillhaven	05	2	2	219	0.00	0.00	102.8	NA	30	97	71.2	NA	0.01	NA	0.02	54.7
Humana	08	43	15	14	1.20	2.78	98.8	-2	76	459	57.9	2.56	3.08*	3.55	3.43	1.6
Lifetime	12	19	15	10	0.00	0.00	8.5	-19	38	54	92.6	1.38	1.89	2.47	2.26	3.5
Manor Care	05	16	6	18	0.13	0.85	38.0	-9	45	107	32.4	0.69	0.85	0.66	1.05	6.2
National Medical Enterprises	05	38	17	12	0.80	2.13	79.1	-6	72	388	88.1	2.67(b)	3.04	3.57	3.54	2.5
PacifiCare Health Systems	09	17	6	11	0.00	0.00	11.5	-34	31	48	113.7	0.96	1.48*	1.49	1.65	3.2
U. S. Healthcare	12	25	4	20	0.36	1.42	46.8	85	74	164	205.7	0.60	1.26	0.43	1.60	10.8
Universal Health Services	12	7	12	8	0.00	0.00	13.7	-25	58	46	54.3	0.62	0.85	0.50	0.98	9.1
MEDICAL PRODUCTS																
GROUP AVERAGE		**52**	**18**	**19**	**0.86**	**1.84**	**132.8**	**15**	**64**	**409**	**68.5**	**2.69**	**2.84**	**3.33**	**3.40**	**3.4**
Abbott Laboratories	12	44	6	20	0.84	1.93	435.2	26	52	795	38.6	1.93	2.23	2.69	2.57	1.0
Bard (C. R.)	12	17	6	21	0.44	2.63	53.0	-26	65	217	121.3	1.18	0.80	1.17	1.04	7.5
Bausch & Lomb	12	64	27	15	1.32	2.07	28.9	-3	79	292	73.4	3.78	4.34	4.93	4.98	1.1
Baxter International	12	28	12	17	0.64	2.28	249.6	13	62	553	75.5	1.50	1.66	2.05	1.97	2.8
Becton, Dickinson	09	73	29	16	1.08	1.47	37.6	16	75	361	65.4	4.00	4.67*	5.63	5.30	1.5
Bencera Group	06	69	36	27	1.00	1.45	22.7	44	72	159	79.2	4.20	2.53*	2.48	3.96	7.6
Johnson & Johnson	12	70	14	18	1.36	1.95	333.1	17	59	956	48.5	3.25	3.78	5.02	4.36	1.8
Medtronic	04	88	21	19	0.82	0.94	27.2	35	72	304	80.9	4.03	4.54	5.34	5.27	2.3
Owens & Minor	12	14	10	15	0.26	1.81	8.4	13	35	44	33.9	0.30	0.99	0.63	1.19	4.9
HOUSING & REAL ESTATE																
INDUSTRY AVERAGE		**16**	**14**	**9**	**0.58**	**3.84**	**29.8**	**-37**	**47**	**111**	**39.3**	**2.19**	**1.79**	**2.55**	**1.88**	**56.4**
BUILDING MATERIALS																
GROUP AVERAGE		**19**	**12**	**10**	**0.58**	**2.61**	**35.0**	**-34**	**46**	**121**	**30.7**	**2.12**	**1.97**	**2.72**	**2.12**	**17.7**
Barnes Group	12	26	20	10	1.40	5.36	6.1	-10	47	33	17.3	1.94	2.73	2.58	2.85	3.0
CalMat	12	23	17	16	0.64(c)	2.80	23.5	-41	41	87	32.2	2.52	1.44	2.11	2.03	38.2
Hughes Supply	01	11	21	8	0.36	3.43	4.3	-48	63	46	33.0	1.33	1.36	1.53	1.55	29.7
Lafarge	12	10	16	9	0.40	3.90	51.2	-40	16	70	14.2	1.98	1.20	3.05	1.23	26.5
Manville	12	5	12	5	0.00	0.00	48.0	-45	28	63	18.8	1.28	0.92	0.59	0.90	14.7
Owens-Corning Fiberglas	12	15	-8	5	0.00	0.00	40.5	-41	69	153	51.3	4.08	3.23	4.77	3.13	19.7
Ply-Gem Industries	12	6	11	9	0.12	2.09	10.4	-49	39	42	33.0	0.90	0.65	0.88	0.80	8.8
PPG Industries	12	42	23	9	1.68	3.98	106.0	4	48	432	36.0	4.18	4.51	5.65	4.62	7.8
Sherwin-Williams	12	35	17	12	0.76	2.15	43.3	3	62	273	49.0	2.52	2.84	3.13	3.17	5.6
Southdown	12	10	20	8	0.50	5.00	16.9	-64	49	103	55.2	0.99	1.22	1.22	1.46	47.0
USG	12	1	-26	NM	0.00	0.00	55.1	-77	17	85	31.4	0.48	-0.13	NA	-0.06	1134.6
Valspar	10	34	11	14	0.52	1.51	10.9	-5	57	58	11.8	2.08	2.45*	2.95	2.79	3.0
Vulcan Materials	12	32	17	10	1.20	3.72	38.1	-30	59	123	15.2	3.30	3.13	4.15	3.06	8.6

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD	SHRS. OUT. MILS	1990 MARKET VALUE CHANGE	INSTITUTIONAL HOLDINGS NUMBER		1990 TURNOVER	EARNINGS PER SHARE 1991 ESTIMATES 1989 ACTUAL	1990 ANALYST EST	BASED ON 5-YEAR TREND	FROM ANALYSTS CONSENSUS	FROM ANALYSTS VARIATION
(b) CONSTRUCTION & REAL ESTATE																
GROUP AVERAGE		**10**	**18**	**7**	**0.57**	**6.11**	**20.2**	**-44**	**50**	**94**	**55.3**	**2.31**	**1.48**	**2.21**	**1.43**	**122.8**
Asset Investors	12	8	15	4	1.80	21.49	13.9	-3	18	25	59.3	1.47	2.14	1.55	1.90	14.9
Centex	03	24	32	7	0.40	1.69	15.0	-24	83	181	77.2	4.02	3.37	3.68	3.03	15.9
Kaufman & Broad Home	11	7	8	5	0.30	4.29	27.7	-49	59	133	75.3	2.44	1.45	2.22	1.28	35.0
Perini	12	9	36	13	0.80	8.65	3.9	-73	48	47	37.8	3.11	0.73	1.08	1.21	23.1
PHM	12	7	13	5	0.12	1.66	23.5	-40	35	107	38.7	2.10	1.33	1.79	1.10	12.4
Ryland Group	12	12	17	7	0.60	5.00	12.1	-38	88	99	62.4	3.25	1.66	2.93	1.48	18.3
U. S. Home	12	0	4	NM	0.00	0.00	45.3	-79	19	64	36.4	-0.21	-0.35	NA	0.03	739.9
14 LEISURE TIME INDUSTRIES																
INDUSTRY AVERAGE		**21**	**12**	**14**	**0.37**	**2.02**	**68.1**	**-29**	**51**	**204**	**89.3**	**1.43**	**1.40**	**2.43**	**1.77**	**39.8**
(a) EATING PLACES																
GROUP AVERAGE		**12**	**5**	**12**	**0.22**	**1.82**	**86.6**	**-21**	**46**	**173**	**63.9**	**0.94**	**0.97**	**1.37**	**1.19**	**14.8**
Bob Evans Farms	04	13	7	13	0.26	2.00	31.7	-8	21	73	62.7	0.87	0.97	1.08	1.16	9.8
Collins Foods International	04	14	12	10	0.20	1.40	22.7	-28	59	103	56.4	1.39	1.36	2.23	1.57	16.0
Karcher (Carl) Enterprises	01	8	4	8	0.08	1.00	17.9	-36	34	53	84.5	0.30	1.01	1.01	1.13	4.0
McDonald's	12	28	11	13	0.34	1.21	358.9	-19	55	735	57.3	1.95	2.21	2.57	2.48	2.2
Morrison	05	13	10	8	0.64	4.92	16.7	-53	46	91	73.3	1.33	1.61	1.86	1.96	13.9
Shoney's	10	10	-9	13	0.00	0.00	38.2	-15	61	134	49.7	0.50	0.75	0.62	0.94	3.6
TW Holdings	12	3	1	NM	0.00	0.00	110.0	-36	69	55	43.9	NA	-0.54	NA	-0.19	57.3
Wendy's International	12	6	5	15	0.24	4.00	96.7	30	23	140	83.1	0.25	0.39	0.21	0.45	11.8
(b) ENTERTAINMENT																
GROUP AVERAGE		**46**	**19**	**23**	**0.39**	**0.66**	**98.0**	**-16**	**37**	**331**	**71.2**	**1.64**	**2.10**	**3.37**	**2.42**	**39.9**
Disney (Walt)	09	100	25	17	0.58	0.58	132.9	-13	42	713	98.9	5.10	6.00*	9.18	6.77	3.7
MCA	12	66	27	27	0.68	1.03	75.2	9	60	344	131.5	3.34	2.43	2.96	3.02	8.5
Orion Pictures	02	13	8	28	0.00	0.00	22.5	-21	18	40	29.0	0.67	0.46	0.61	0.52	65.7
Paramount Communications	10	41	32	19	0.70	1.71	119.0	-20	48	441	78.8	0.09	2.16	0.76	2.41	7.4
United Artists Entertainment	12	12	5	NM	0.00	0.00	140.5	-36	15	117	18.0	-0.99	-0.55	NA	-0.63	114.1
(c) HOTEL & MOTEL																
GROUP AVERAGE		**20**	**10**	**18**	**0.25**	**1.03**	**43.1**	**-54**	**52**	**165**	**137.0**	**1.61**	**1.68**	**2.84**	**2.00**	**16.2**
Aztar	12	3	8	53	0.00	0.00	38.7	-68	55	86	165.8	-1.18	0.05	NA	0.38	23.7
Caesars World	07	15	11	10	0.00	0.00	23.7	-53	82	127	166.7	2.72	1.52*	2.68	1.70	24.2
Circus Circus Enterprises	01	47	5	16	0.00	0.00	27.5	-19	64	179	105.1	2.60	3.04	4.25	3.98	3.2
Hilton Hotels	12	32	19	14	1.20	3.71	47.5	-61	30	225	158.2	2.27	2.28	2.57	2.50	14.9
Marriott	12	11	5	7	0.28	2.49	94.5	-69	31	232	89.2	1.62	1.56	1.85	1.55	16.5
Promus	12	13	10	8	0.00(c)	0.00	26.5	NA	51	140	NA	NA	1.65	NA	1.87	14.9
(d) OTHER LEISURE																
GROUP AVERAGE		**17**	**14**	**11**	**0.48**	**2.97**	**58.4**	**-30**	**57**	**193**	**93.0**	**1.52**	**1.27**	**2.58**	**1.78**	**62.5**
American Greetings	02	33	19	13	0.70	2.11	31.3	-8	74	234	133.3	2.25	2.61	2.09	2.96	4.7
Bally Mfg.	12	3	18	23	0.30	9.60	30.3	-78	29	102	215.2	0.66	0.14	0.24	0.23	159.7
Brunswick	12	8	10	13	0.44	5.59	88.2	-44	66	209	39.6	-0.81	0.59	0.85	0.63	32.4
Carnival Cruise Lines	11	13	8	8	0.48	3.62	134.7	-33	15	130	17.3	1.44	1.59	1.91	1.71	10.5
Eastman Kodak	12	42	20	11	2.00	4.72	324.5	3	48	790	70.9	1.63	3.94	5.01	4.29	3.7
Fleetwood Enterprises	04	19	19	11	0.84	4.42	22.2	-22	72	155	56.0	2.42	1.72	2.40	2.10	19.5
Gibson Greetings	12	25	15	10	0.34	1.35	15.7	-3	82	132	140.0	2.68	2.57	2.97	2.82	4.6
Harley-Davidson	12	18	11	8	0.00	0.00	17.8	8	79	110	118.1	1.89	2.34	4.42	2.78	7.4
Harman International	06	7	12	5	0.00	0.00	8.8	-64	46	50	49.8	1.78	1.61*	1.85	1.37	18.4
Hasbro	12	15	15	11	0.20	1.30	57.4	-20	59	205	49.1	1.56	1.46	1.27	1.65	9.2
Huffy	12	15	11	8	0.40	2.62	9.8	-8	60	95	58.9	1.75	2.00	5.74	2.10	12.3
Mattel	12	20	7	10	0.12	0.62	49.1	0	62	206	107.6	1.60	2.02	1.87	2.32	4.2
Outboard Marine	09	13	31	NM	0.80	6.10	19.4	-50	71	137	69.9	1.09	-3.98*	NA	-0.28	234.3
Polaroid	12	24	4	12	0.60	2.55	51.9	-49	68	257	75.9	1.96	1.99	2.87	2.21	9.9
Tonka	12	4	12	NM	0.00	0.00	14.6	-65	30	80	193.2	0.90	-1.52	NA	-0.19	406.0
15 MANUFACTURING																
INDUSTRY AVERAGE		**23**	**16**	**12**	**0.70**	**3.22**	**36.7**	**-24**	**56**	**191**	**70.5**	**1.94**	**1.87**	**3.27**	**2.21**	**25.1**
(a) GENERAL MANUFACTURING																
GROUP AVERAGE		**29**	**14**	**13**	**0.80**	**2.80**	**53.4**	**-14**	**55**	**244**	**46.0**	**2.07**	**2.24**	**3.00**	**2.46**	**7.7**
Avery Dennison	12	19	14	12	0.72	3.74	44.4	-40	70	259	82.5	1.96	1.58	1.94	1.84	7.5
Corning	12	42	20	15	1.13	2.69	92.3	5	55	382	43.0	2.79	2.74	3.87	3.05	6.0
Crane	12	21	10	10	0.75	3.59	31.3	-12	60	181	30.7	1.69(b)	2.05	2.77	2.14	2.0
First Brands	06	16	9	7	0.04	0.25	21.6	-13	52	47	63.0	2.79	2.40*	NA	2.40	5.9
[illegible]co	12	21	16	8	1.20	5.68	26.2	-17	42	111	34.1	0.43	2.58	1.03	2.67	20.5
Hillenbrand Industries	11	37	12	18	0.55	1.50	36.9	-16	36	128	12.5	2.02	2.08	2.80	2.34	2.5
Illinois Tool Works	12	46	19	14	0.72	1.57	54.8	4	68	296	31.7	3.06	3.36	5.67	3.60	6.3
[illegible]	06	32	6	21	0.80	2.54	40.5	15	58	222	32.0	1.39	1.51*	1.71	1.73	2.2
Minnesota Mining & Mfg.	12	81	27	14	2.92	3.59	220.3	1	66	916	49.1	5.60	5.99	7.44	6.45	2.0
Newell	12	24	8	16	0.50	2.07	59.5	10	60	258	47.5	1.41(b)	1.51	2.09	1.71	4.5
Parker Hannifin	06	22	20	10	0.92	4.11	48.9	-11	68	235	46.0	2.11	2.26*	2.26	2.38	6.3
Rub[illegible]maid	12	41	9	22	0.60	1.47	74.1	12	47	323	31.2	1.58	1.82	2.19	2.09	2.6

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY		RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD %	SHRS. OUT. MILS	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER %	EARNINGS PER SHARE 1989 ACTUAL	EARNINGS PER SHARE 1990 ANALYST EST	EARNINGS PER SHARE BASED ON 5 YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
Tredegar Industries	12	8	15	17	0.24	3.00	10.9	–53	44	60	36.5	1.44	0.48	NA	0.96	28.1
Trinova	12	17	21	10	0.68	4.00	28.2	–41	69	195	68.7	0.98	1.75	1.58	1.95	10.2
Valmont Industries	12	12	10	8	0.26	2.26	11.3	–38	31	49	81.2	1.78	1.45	3.69	1.67	8.6
(b) **MACHINE & HAND TOOLS**																
GROUP AVERAGE		**18**	**16**	**11**	**0.62**	**3.30**	**28.5**	**–25**	**57**	**150**	**72.6**	**1.45**	**1.77**	**2.78**	**2.04**	**73.3**
Black & Decker	12	11	13	10	0.40	3.60	61.6	–40	53	205	114.8	0.51	1.13	1.16	1.57	14.8
Cincinnati Milacron	12	9	8	18	0.72	7.89	27.3	–41	66	143	35.4	0.75	0.51	0.51	0.94	53.1
Clark Equipment	12	24	32	7	0.00	0.00	17.2	–36	64	156	73.8	3.77	3.59	NA	3.25	15.4
Cross & Trecker	09	3	9	NM	0.00	0.00	12.4	–64	79	103	222.5	–3.76	–1.02*	NA	0.08	538.5
Danaher	12	17	11	9	0.00	0.00	28.4	33	24	70	41.4	1.98	1.74	3.94	2.01	5.9
Kennametal	06	29	23	9	1.16	4.05	10.5	–4	75	118	52.9	2.90	3.08*	5.75	3.24	4.9
Snap-on Tools	12	30	15	11	1.08	3.65	41.3	–9	61	219	40.5	2.55	2.62	3.35	2.77	4.6
SPX	12	16	14	10	1.00	6.35	15.5	–39	47	136	45.9	1.66	1.64	1.73	1.79	13.2
Stanley Works	12	29	17	11	1.20	4.14	41.8	–28	42	202	26.5	2.71	2.67	3.04	2.74	9.5
(c) **SPECIAL MACHINERY**																
GROUP AVERAGE		**25**	**18**	**10**	**0.74**	**2.55**	**35.2**	**–18**	**62**	**224**	**102.4**	**2.07**	**2.22**	**4.50**	**2.49**	**15.6**
Applied Materials	10	18	18	9	0.00	0.00	16.7	–34	79	138	252.3	3.07	2.00*	4.05	1.96	21.6
Briggs & Stratton	06	26	18	11	1.60	6.12	14.5	–2	68	162	57.6	–1.39	2.45*	2.25	2.51	7.8
Caterpillar	12	41	45	17	1.20	2.92	100.9	–29	68	525	88.9	4.90	2.47	5.49	3.02	32.1
Deere	10	45	40	8	2.00	4.47	76.1	–27	77	561	128.9	5.06	5.42*	12.98	4.76	18.5
Dover	12	36	13	14	0.80	2.23	60.7	–3	56	297	40.2	2.28	2.55	3.04	2.72	8.4
FMC	12	30	4	7	0.00	0.00	35.0	–14	62	188	37.4	4.35	4.42	7.09	4.75	9.4
Goulds Pumps	12	19	10	12	0.76	4.11	20.7	4	54	104	218.4	1.41	1.49	1.61	1.60	4.5
Harnischfeger Industries	10	16	18	7	0.20	1.25	32.3	–23	73	185	120.4	1.66	2.18*	2.66	2.02	8.7
Ingersoll-Rand	12	34	29	9	1.32	3.91	51.7	–33	65	402	78.1	3.78	3.64	4.93	3.64	9.6
Interlake	12	4	21	NM	0.00	0.00	10.4	–73	36	87	50.5	0.09	–1.05	NA	0.42	25.0
McDermott International	03	25	14	NM	1.00	4.06	44.0	25	78	244	128.8	–2.68	–0.67	NA	1.17	38.8
Pentair	12	25	18	11	0.88	3.56	10.6	–12	65	76	61.7	2.85(b)	2.24	3.00	2.59	4.6
Stewart & Stevenson Services	01	33	11	15	0.24	0.74	14.9	17	65	130	156.7	1.93	2.19	3.19	2.60	2.7
Terex	12	9	10	5	0.05	0.53	9.8	–48	24	50	75.8	1.90	1.88	3.49	1.58	30.3
Timken	12	23	37	11	1.00	4.35	29.6	–20	65	204	39.8	1.88	2.15	4.72	1.97	11.7
(d) **TEXTILES**																
GROUP AVERAGE		**11**	**16**	**16**	**0.56**	**5.16**	**17.2**	**–51**	**44**	**79**	**54.4**	**2.00**	**0.65**	**1.77**	**1.42**	**21.3**
Albany International	12	10	10	45	0.35	3.37	25.3	–46	37	87	40.7	1.75	0.23	0.53	0.65	14.4
Delta Woodside Industries	06	4	7	13	0.30	7.50	18.9	–64	19	29	24.9	1.65	0.32*	0.36	1.00	18.3
Dixie Yarns	12	10	19	15	0.68	6.80	9.1	–40	47	40	41.2	1.13(b)	0.69	0.85	0.91	20.2
Fieldcrest Cannon	12	6	25	NM	0.40	6.40	10.4	–72	37	59	72.0	2.28	–0.98	NA	0.48	84.0
Guilford Mills	06	15	20	NM	0.80	5.33	8.7	–42	46	49	34.1	2.67	–0.85*	NA	2.08	9.3
Interface	12	9	11	7	0.24	2.78	17.2	–51	74	87	109.1	1.27(b)	1.24	1.66	1.30	9.0
Shaw Industries	06	17	8	8	0.50	3.01	30.0	–46	46	134	80.1	1.57	2.11*	2.35	2.18	6.2
Springs Industries	12	20	31	8	1.20	6.08	17.7	–48	44	143	33.4	3.64	2.43	4.85	2.74	9.5
16 **METALS & MINING**																
INDUSTRY AVERAGE		**25**	**23**	**11**	**0.88**	**3.55**	**41.1**	**–23**	**57**	**172**	**64.3**	**3.37**	**3.63**	**20.86**	**4.18**	**27.0**
(a) **ALUMINUM**																
GROUP AVERAGE		**39**	**44**	**6**	**1.40**	**3.34**	**60.5**	**–20**	**58**	**326**	**114.5**	**9.26**	**9.41**	**82.44**	**12.42**	**16.9**
Aluminum Co. of America	12	55	61	8	3.00(c)	5.47	86.4	–28	76	554	122.5	10.67	6.69	13.69	7.26	21.4
Amax	12	18	25	7	0.80	4.41	87.7	–20	65	316	145.0	4.19	2.56	5.78	2.86	18.4
Maxxam	12	33	42	2	0.00	0.00	8.6	–30	11	32	83.9	12.97	21.77	296.33	32.23	9.8
Reynolds Metals	12	52	48	8	1.80	3.50	59.2	–4	79	403	106.4	9.20	6.60	13.97	7.32	18.1
(b) **STEEL**																
GROUP AVERAGE		**22**	**20**	**14**	**0.78**	**3.96**	**30.8**	**–25**	**59**	**121**	**49.4**	**1.75**	**1.96**	**3.43**	**2.50**	**29.5**
Allegheny Ludlum	12	21	11	9	0.88	4.24	32.9	–25	48	98	24.8	3.96	2.42	3.91	2.82	20.7
Armco	12	4	10	NM	0.20	4.85	88.5	–62	60	176	55.3	2.28	–0.44	NA	0.59	51.0
Bethlehem Steel	12	12	23	15	0.40	3.40	75.9	–36	72	199	72.3	2.93	0.78	1.09	1.96	41.1
Carpenter Technology	06	40	36	8	2.40	6.02	8.5	–20	70	107	54.5	3.16	5.05*	4.39	4.98	7.5
Commercial Metals	08	18	18	8	0.52	2.93	11.1	21	42	50	23.9	2.46	2.27*	3.35	2.22	10.4
Inland Steel Industries	12	24	44	44	1.40	5.86	31.1	–37	80	202	70.1	3.15	0.54	1.46	1.89	47.5
Lone Star Technologies	12	3	5	NM	0.00	0.00	20.3	–33	69	47	67.5	–9.28	0.00	NA	0.46	116.5
Lukens	12	36	24	7	1.48	4.14	8.3	–6	70	109	78.0	4.73	4.93	8.82	5.16	10.8
Nucor	12	62	30	17	0.48	0.78	21.5	3	70	207	46.1	2.71	3.53	3.48	4.53	10.6
Quanex	10	13	12	6	0.40	3.08	12.3	–13	66	79	46.6	2.11	2.03*	2.56	2.16	12.0
Weirton Steel	12	7	17	8	0.64	9.31	19.9	–38	23	30	9.7	1.37	0.89	NA	1.45	19.5
Worthington Industries	05	21	9	13	0.60	2.93	39.5	–12	39	151	44.1	1.38	1.57	1.80	1.83	6.0
(c) **OTHER METALS**																
GROUP AVERAGE		**24**	**19**	**11**	**0.77**	**3.11**	**46.1**	**–22**	**52**	**170**	**61.7**	**2.92**	**3.29**	**9.67**	**2.75**	**28.2**
Asarco	12	26	37	6	1.60	6.21	41.3	–14	54	199	56.9	5.50	4.45	4.51	3.35	24.8
Cyprus Minerals	12	17	30	6	0.80	4.60	40.0	–31	69	225	66.1	6.06	3.09	10.75	2.60	32.2
Handy & Harman	12	12	8	16	0.66	5.33	14.0	–23	54	89	64.0	0.56	0.77	0.79	1.13	41.0
Inspiration Resources	12	3	7	7	0.12	3.84	66.3	–49	25	54	14.5	0.38	0.46	1.00	0.61	36.1
Magma Copper	12	5	18	2	0.00	0.00	28.9	–10	52	61	83.4	1.48	2.08	NA	1.05	47.1
Newmont Gold	12	36	6	24	0.05	0.14	104.9	–27	NA	NA	19.0	1.13	1.52	2.15	1.61	13.2

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD %	SHRS. OUT. MILS.	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER %	EARNINGS PER SHARE 1989 ACTUAL	1991 ESTIMATES 1990 ANALYST EST.	1991 ESTIMATES BASED ON 5-YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
Newmont Mining	12	35	2	19	0.60	1.70	67.7	–25	31	257	56.7	1.92	1.83	1.94	2.07	26.9
Phelps Dodge	12	52	46	4	3.00	5.73	34.5	–12	80	358	153.4	7.59	13.40	53.39	9.68	24.0
Precision Castparts	03	30	14	15	0.12	0.40	17.3	–2	54	116	41.4	1.70	2.05	2.85	2.67	8.3
17 NONBANK FINANCIAL																
INDUSTRY AVERAGE		**111**	**84**	**47**	**0.98**	**4.61**	**55.6**	**–31**	**55**	**199**	**61.6**	**8.07**	**6.23**	**12.43**	**7.28**	**20.5**
(a) **FINANCIAL SERVICES**																
GROUP AVERAGE		**284**	**192**	**12**	**0.84**	**3.08**	**73.5**	**–21**	**54**	**248**	**52.8**	**18.84**	**13.87**	**25.67**	**15.07**	**9.8**
Alexander & Alexander	12	22	10	18	1.00	4.55	40.6	–28	68	155	41.0	1.45	1.24	1.47	1.63	11.3
Alleghany	12	80	101	12	0.00(d)	0.00	6.3	–14	58	71	15.2	8.42	6.80	5.98	8.00	0.0
American Express	12	21	12	30	0.92	4.49	437.5	–38	65	810	65.9	2.70	0.68	1.14	3.00	6.2
Bear Stearns	06	9	9	8	0.56(d)	6.22	96.8	–28	47	170	48.3	1.54	1.10*	1.15	1.01	6.2
Beneficial	12	43	38	8	2.40	5.65	22.4	–13	67	216	60.1	5.01	5.63	6.06	6.09	2.7
Berkshire Hathaway	12	6345	4194	24	0.00	0.00	1.1	–27	6	105	4.0	390.01	267.50	522.26	285.00	2.3
Block (H&R)	04	43	9	16	1.56	3.64	52.9	17	71	360	43.6	2.31	2.61	3.09	2.96	1.6
Broad	09	5	11	5	0.20	4.32	32.0	–61	57	85	60.4	0.80	1.02*	0.87	1.84	7.8
Edwards (A. G.)	02	19	16	8	0.68	3.63	22.6	–19	49	98	38.8	2.56	2.47	2.46	2.46	12.2
Equifax	12	14	5	15	0.48	3.34	49.2	–10	44	144	58.7	0.73	0.99	1.02	1.19	1.2
Fed. Home Loan Mortgage Assn.	12	41	35	6	1.60	3.95	60.1	–40	73	331	120.1	7.29	6.93	NA	8.50	6.2
Federal Natl. Mortgage Assn.	12	32	16	7	0.88	2.78	239.6	–6	87	654	123.3	3.14	4.44	10.70	4.99	2.2
First American Financial	12	9	15	7	0.40	4.57	9.8	–31	31	35	11.3	1.35	1.18	1.15	1.44	19.4
First Financial Management	12	17	21	7	0.10	0.60	27.7	–45	50	136	85.9	2.29	2.58	4.34	3.09	5.9
Leucadia National	12	23	22	8	0.00	0.00	12.2	–1	23	23	14.1	1.70	2.83	2.90	3.13	39.2
Loews	12	93	69	9	1.00	1.07	71.9	–28	54	444	47.8	12.07	10.49	14.40	11.09	12.2
Marsh & McLennan	12	76	14	18	2.60	3.42	73.4	–1	62	436	38.6	4.10	4.21	5.25	4.74	4.6
Merrill Lynch	12	19	32	11	1.00	5.16	101.3	–27	52	222	67.8	–2.35	1.71	2.26	1.93	13.1
Morgan Stanley Group	12	53	48	7	1.50	2.83	35.9	–20	31	134	36.0	11.21	7.17	10.82	7.77	11.4
PaineWebber Group	12	13	26	15	0.52	3.92	25.0	–22	60	98	46.6	1.05	0.88	0.68	0.99	30.3
Primerica	12	23	25	7	0.40	1.77	109.4	–22	74	384	72.2	2.87	3.26	5.35	3.63	4.1
Salomon	12	24	26	7	0.64	2.64	111.0	–3	66	387	69.7	3.26	3.49	2.46	3.69	6.2
Schwab (Charles)	12	12	6	16	0.16	1.35	25.0	–16	22	49	33.2	0.68	0.73	0.57	0.81	17.3
Student Loan Marketing Assn.	12	41	10	14	0.52	1.27	97.1	–16	76	354	84.2	2.53	2.98	3.96	3.48	2.6
Transamerica	12	34	36	9	1.96	5.85	76.3	–24	55	288	32.4	4.18	3.88	5.73	4.24	6.2
(b) **INSURANCE**																
GROUP AVERAGE		**34**	**33**	**79**	**1.26**	**5.03**	**50.0**	**–30**	**56**	**197**	**61.1**	**3.76**	**3.40**	**5.75**	**3.95**	**20.5**
Aetna Life & Casualty	12	39	63	7	2.76	7.15	111.0	–32	78	486	56.3	5.69	5.46	6.40	6.00	7.1
Ambase	12	1	27	NM	0.00	0.00	33.9	–96	41	74	116.8	2.82	–2.18	NA	–0.42	227.3
American Family	12	17	9	12	0.36	2.13	81.4	–6	32	124	39.9	1.00	1.43	1.59	1.73	2.3
American General	12	29	34	8	3.20	11.08	119.5	0	89	392	101.1	3.34	3.66	3.55	4.00	2.9
American International Group	12	74	44	11	0.44	0.60	204.7	–11	51	655	44.2	6.63	6.49	10.13	7.31	2.7
American National Insurance	12	29	57	8	1.72	5.98	28.2	–17	22	59	18.3	3.59	3.47	3.66	3.73	3.1
Aon	12	35	22	9	1.52	4.41	64.3	–19	53	213	21.3	3.54	3.77	4.14	4.16	3.1
BMA	12	23	33	12	1.20(c)	5.27	9.1	–46	44	37	59.9	2.60	1.98	2.05	2.28	14.0
Capital Holding	12	35	31	7	1.08	3.09	45.9	–33	66	297	54.2	5.85	5.04	6.65	5.68	4.3
Chubb	12	50	33	10	1.32	2.64	81.9	2	76	399	80.1	4.92	5.10	35.95	5.55	4.2
Cigna	12	40	71	9	3.04	7.65	72.2	–38	92	377	60.4	5.68	4.34	4.15	5.39	9.2
CNA Financial	12	62	67	11	0.00	0.00	61.8	–37	NA	NA	11.6	9.73	5.43	9.52	5.62	12.2
Conseco	12	28	19	6	0.24	0.85	5.7	–5	55	47	114.1	5.04(b)	4.50	9.77	5.42	10.0
Continental Corp.	12	24	37	25	2.60	10.83	54.2	–22	NA	NA	70.3	2.74	0.96	0.94	1.04	61.3
First Capital Holdings	12	2	9	2	0.00	0.00	46.7	–79	22	50	92.7	1.76	1.23	3.62	1.20	8.3
Fund American	12	48	35	74	0.68	1.42	30.9	20	73	138	116.4	0.99	0.64	0.69	1.06	55.2
Geico	12	164	61	15	2.00	1.22	14.9	5	78	111	7.5	13.74	10.60	16.06	11.48	7.2
General Re	12	89	34	14	1.52	1.70	87.4	0	83	575	50.2	6.52	6.33	10.47	7.08	2.1
Hartford Steam Boiler	12	46	16	15	1.80	3.91	20.8	–13	44	144	32.1	3.78	3.10	4.79	3.48	7.2
ICH	12	3	2	5	0.00	0.00	48.2	–43	7	40	50.6	–7.69	0.64	0.27	0.84	13.3
Independent Insurance Group	12	15	25	7	0.84	5.51	13.3	–31	15	32	16.9	2.20	2.34	2.36	2.56	4.1
Jefferson-Pilot	12	37	38	10	1.52	4.15	35.2	–19	51	211	33.8	3.65	3.84	3.68	4.12	3.5
Kemper	12	20	33	2516	0.92	4.57	47.7	–58	48	126	60.4	4.44	0.01	0.09	4.27	7.3
Lincoln National	12	41	52	9	2.60	6.30	41.5	–33	66	234	30.2	6.06	4.79	5.43	5.47	8.0
Monarch Capital	12	2	32	2	0.00	0.00	6.7	–90	56	49	90.5	0.77	0.71	0.47	1.14	56.6
NWNL	12	17	41	3	1.32	7.82	12.4	–58	66	120	265.6	4.14	5.73	6.75	6.07	6.0
Orion Capital	12	16	23	4	0.92	5.84	6.4	–31	73	50	57.4	3.47	3.64	3.82	4.15	11.2
Progressive	12	48	18	11	0.48	1.00	23.2	14	61	102	37.1	2.93	4.43	6.04	5.10	10.3
Provident Life & Accident	12	15	27	4	0.92	6.08	46.7	–41	44	108	45.2	3.17	3.78	3.19	4.01	4.4
Reliance Group Holdings	12	5	7	NM	0.32	6.92	74.6	–10	12	21	5.8	0.29	–0.33	NA	0.33	45.8
Safeco	12	30	30	8	1.36	4.53	62.9	–23	61	252	72.2	4.75	3.85	5.83	4.15	6.3
St. Paul	12	63	50	8	2.40	3.81	42.3	–9	86	316	113.5	8.13	7.73	16.80	7.84	6.2
Torchmark	12	47	18	11	1.40	2.99	51.3	–19	43	250	32.3	3.88	4.41	5.02	4.91	3.3
Travelers	12	14	40	4	1.60	11.85	101.8	–64	75	415	79.0	4.07	3.25	3.50	3.33	12.3
UNUM	12	47	36	10	0.80	1.69	33.7	–7	72	204	74.0	3.87	4.80	7.17	5.29	3.4
USF&G	12	10	20	19	2.92	30.74	83.7	–67	37	325	79.5	1.21	0.50	0.42	0.59	121.4
USLife	12	30	59	7	1.48	5.02	15.5	–39	65	162	56.1	4.63	4.27	4.55	4.47	6.2
Washington National	12	12	32	14	1.08	9.39	10.3	–61	63	45	23.4	0.87	0.83	0.62	1.26	14.1
Zenith National Insurance	12	11	14	5	0.88	8.09	19.7	–41	57	48	11.9	1.98	2.15	2.65	2.43	4.2

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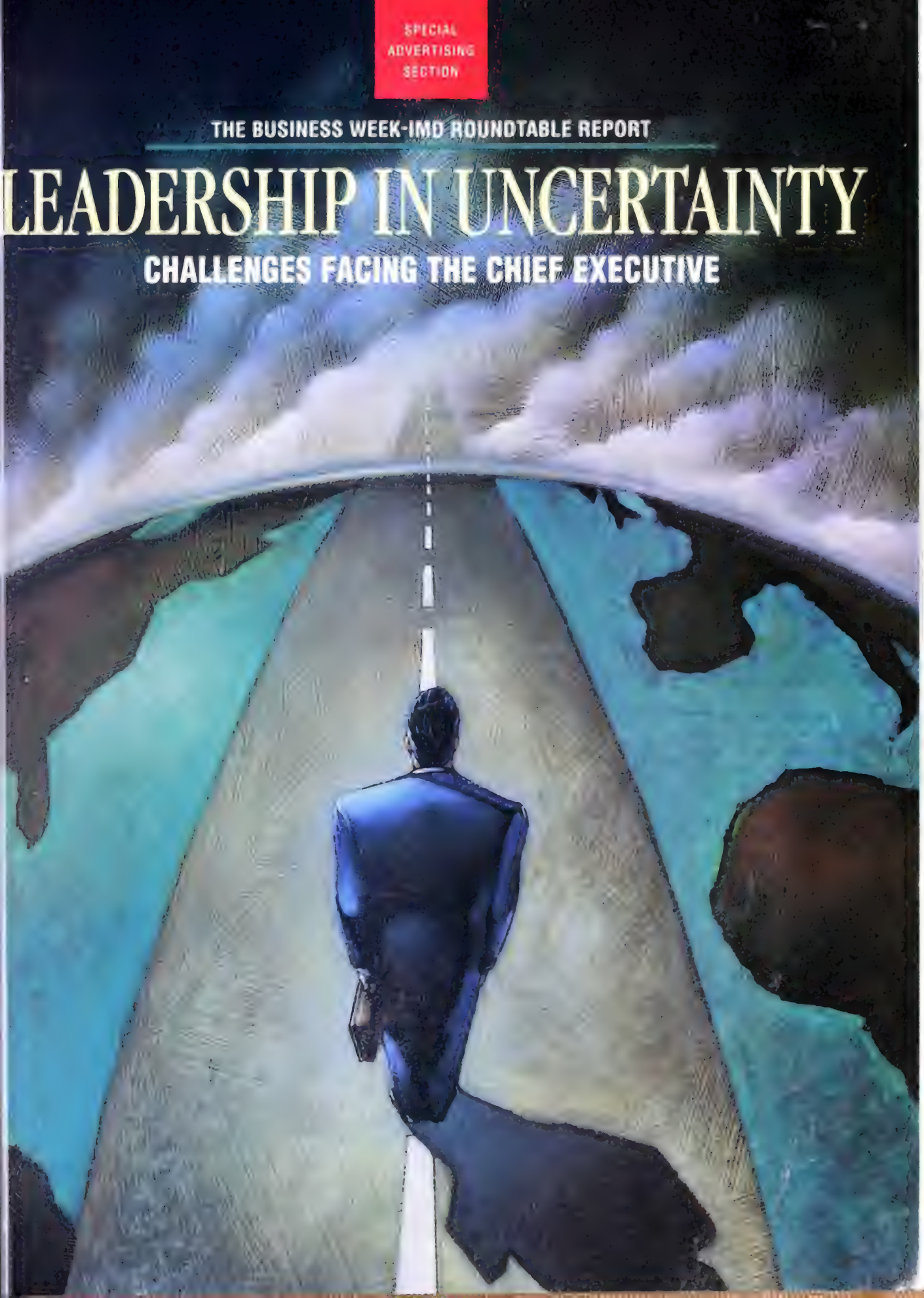
CHALLENGES FACING THE CHIEF EXECUTIVE



THE BUSINESS WEEK-IMD ROUNDTABLE REPORT

LEADERSHIP IN UNCERTAINTY

BY BRIJ KHINDARIA

"...entirely new ways of thinking about customers, markets, productivity, competition, and geography..."

William G. McGowan
Chairman and CEO of MCI Communications Corporation

"Companies need people who feel love for uncertainty."

Vittorio Cassoni
Group Managing Director
Olivetti Group

As the family of nations struggles for an economic foothold, chief executive officers are faced with a new set of challenges. These challenges are born of uncertainties of a kind not seen in recent times. They stem from unpredictable international politics combined with volatile markets—a business environment where a sneeze in Tokyo becomes a cold in Wall Street, and pneumonia in London, Frankfurt and Sydney. Some challenges are ominous, jeopardizing business survival. Others are challenges of a positive character, opportunities to chart new courses toward profitability.

Whether or not there is a war or a world-wide economic recession, one thing is certain, and that is uncertainty. As a result, CEOs must demonstrate qualities of leadership and personal integrity far beyond those required in past decades. Only cool heads set firmly upon square shoulders and animated by humane hearts will be able to overcome the random obstacles and exploit the slippery opportunities that will characterize the world business environment for the rest of this century.

These were some of the opinions voiced at a unique Roundtable for CEOs held jointly by Business Week and the International Institute for Management Development (IMD), one of Europe's leading management schools, based in Lausanne, Switzerland. The Roundtable was attended by 280 western European business leaders.

INFORMATION: THE CEO'S KEY RESOURCE

"Decision-making in the 1990s wil take place in an atmosphere of turbu lence and rapid-fire change. The chal lenge is to take charge of change and not let change get the better of you," said William G. McGowan, Chairman and CEO of MCI Communications Corporation.

In such a rapidly changing envi ronment, CEOs need to get a handle on things quickly, so they must have fingertip access to as much relevant information as possible from around the world. That means they must understand the role and capabilities of information technologies. "We are well into the era of anytime, anywhere business. It is a whole new world where business imagination, combined with an understanding of what information technologies can do opens up entirely new ways of thinking about customers, markets, productivity, competition and geography," McGowan said.

"Today, information no longer trickles down. It gushes—up, down and across. The biggest advantage of adopting existing and future information technologies will come in the form of organization health—increased productivity, better decision-making, improved operating efficiencies, enhanced responsiveness to customers, and reduced bureaucracy," he explained.

Vittorio Cassoni, Group Managing Director of Italy's Olivetti Group said the modern model of business organization requires rigorous elimination of managerial hierarchies, and a move away from seeing information as power. The wise CEO, says Cassoni, understands that wide intra-corporate

LEADERSHIP IN UNCERTAINTY

dissemination of information is imperative to the successful use of employees' capacity to respond to—or even lead—change.

RISK, RISK, RISK...REWARD

A warning to CEOs too slow to adapt to change came from George Vojta, a member of the Managing Committee and Executive Vice President for Emerging Markets of Bankers Trust Company. In addition to an uncertain business environment, world financial and commodity markets have become very volatile. The risks taken to earn profits have not necessarily increased, but the profile of risk is changing constantly. To convert external change into opportunities for gain, every enterprise must create the ability not only to reposition itself in relation to the new risks affecting its business, but also to safely move from one risk position to another, to take advantage of the changes.

"Businesses which do not have these capabilities risk their survival. Volatility provides great opportunities for profit because the risk-to-reward ratio is higher in volatile conditions than in stable conditions. By the same token, if the business is not nimble enough to adapt to a new risk profile, it can be sunk by its own inflexibility," Vojta cautioned. CEOs and their staffs must assess the risks fundamental to or "embedded" in their businesses, and then run them through a discipline that says, "What do we do if our assumptions are mistaken or upset by random and unexpected changes in the external environment?"

One method of forging ahead in volatile financial markets is to have adequate liquid assets marked at current market values, rather than at outdated historical values. Another is to use financial derivatives, such as futures, swaps, options, and hedges, Vojta said.

STRATEGIC EMPOWERMENT

CEOs are looking for ways to unleash their employees' creativity. The favored method is to transfer more information, power, and freedom to employees, combined with improved systems of reward and accountability.

Barry Hedley, Managing Director of Braxton Associates, and Jacques Manardo, Chairman of the European Board of Deloitte Ross Tohmatsu (DRT), a parent company of Braxton, emphasized the need for "strategic empowerment" of employees to enable them to quickly respond to changes in their local business environment.

"Massive programs of change are required. It is a big challenge to have managers traditionally rewarded for conservatism and cautious budgeting actually believe that they will be rewarded for taking intelligent commercial risks," Hedley said. CEOs and managers must be more skillful at evaluating and managing risks to avoid falling into the trap of risk avoidance, which usually results in lower profits.

"Excessive centralization, rigidity and homogeneity are not desirable ingredients of global management, given today's uncertainties," Manardo said, pointing to DRT's own structure as an example of the type of flexibility required today. Positioned in a crowded and very competitive field (accounting and management consulting) DRT focuses on responding to clients' needs through tailored, specialized services delivered by indepen-

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dently-owned national firms. This structure creates a firm capable of rapid adaptation—a firm with a spirit of entrepreneurship among its managers.

PEOPLE WHO LOVE UNCERTAINTY

Olivetti's Cassoni says companies need people who "feel love for uncertainty." "Intelligence and competence are available at a price. It is very hard to find people with the ability to absorb uncertainty."

Cassoni defined today's business leadership as "the ability to create consensus around clear goals and to move all employees toward those goals, despite daily increases in uncertainties affecting the company. A business organization is more and more like a living body," he said. "A properly functioning living body is an automatic survival machine. Information is immediately available throughout the body and all the body's organs and functions cooperate immediately to achieve the one irreducible objective—survival. That," says Cassoni, "is how a business should be, with the difference that its goal is not just survival, but growth and health."

But can uncertainty actually be loved? Juan Rada, IMD's Director-General, calls uncertainty "a natural state, one that should not be viewed with apprehension."

"I do not share the view that we are living in a world buffeted by random turbulence. What has happened is that during the 1980s, the world has become very interconnected. There is a cybernetic interconnection such that one alteration anywhere affects the entire system," he said, emphasizing the need for carefully designed and efficient corporate information systems.

"The need for new, flexible structures that respond more rapidly to external changes and more closely match peoples' needs, is not limited to large corporations. We also need new institutional structures within governments and nations—structures that are more responsive and accountable to the people," Rada added.

A CHANGE-FILLED TIME

The Roundtable was held at a particularly appropriate moment, immediately following Germany's reunification. Soviet President Mikhail Gorbachev's stumbling perestroika, the European Community's imminent economic integration, and the specter of war in the Persian Gulf completed an atmosphere of global change, regional flux, and general uncertainty not felt since the 1940s.

Meeting participants emphasized the need for clear vision at the top, strong nerves, and flexible tactics to handle emerging business challenges. Wealth must be created and profits made without back-sliding on business ethics, social concerns, or good corporate citizenship—and all this must be done in an increasingly varied array of cultural and political environments.

A consensus emerged that to survive and prosper in such fast-moving times, CEOs must widen their horizons to take account of the impact of external changes far beyond the direct parameters of their business.

It was also agreed that this challenge is far easier to understand than to answer. ■

Brij Khindaria is an international economic affairs writer based in Geneva, Switzerland

"Centralization, rigidity, and homogeneity are not desirable..."

Jacques Manardo
Chairman, European Board
Deloitte Ross Tohmatsu

"Uncertainty is a natural state, one that should not be viewed with apprehension."

Juan Rada
Director General, International Institute for Management Development

INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST	1990 DIVIDEND RATE	YIELD	SHRS OUT. MILS	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER	EARNINGS PER SHARE 1989 ACTUAL	EARNINGS PER SHARE 1990 ANALYST EST	1991 ESTIMATES BASED ON 5-YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
SAVINGS & LOAN																
GROUP AVERAGE		**9**	**27**	**5**	**0.38**	**6.29**	**37.8**	**–53**	**57**	**112**	**79.9**	**0.27**	**0.01**	**2.33**	**2.31**	**40.2**
Ahmanson (H. F.)	12	13	21	6	0.88	6.90	99.0	–33	87	274	63.9	1.95	2.26	1.85	2.64	9.7
CalFed	12	3	50	NM	0.12	3.69	25.5	–84	80	112	144.8	3.28	–4.49	NA	1.60	43.3
Citadel Holding	12	23	65	3	0.00	0.00	3.3	–47	38	26	13.4	2.47	7.27	4.24	8.28	23.9
Coast Savings Financial	12	4	11	NM	0.40	11.03	15.2	–69	83	51	103.0	–4.87	–3.06	NA	1.29	67.4
Dime Savings Bank of N. Y.	12	3	22	NM	0.60	24.00	22.8	–76	67	66	76.0	–3.94	–2.63	NA	0.93	47.2
Downey Savings & Loan Assn.	12	14	15	5	0.28	2.07	16.2	–24	24	44	23.7	0.17	2.78	0.60	2.87	23.7
Glenfed	06	6	38	2	0.60	9.41	34.2	–56	35	75	105.0	3.73(b)	3.56*	4.73	1.67	79.0
Golden West Financial	12	25	19	9	0.18	0.73	63.2	8	66	247	59.5	2.51	2.85	2.56	3.26	5.8
Great American Bank	12	1	11	NM	0.00	0.00	24.0	–90	6	21	139.9	–11.00	–5.51	NA	–0.50	141.4
Great Western Financial	12	11	16	5	0.84	8.00	128.5	–40	82	329	75.8	0.78	2.00	1.21	2.40	8.4
HomeFed	12	5	45	NM	0.20	3.72	21.5	–83	78	104	153.0	5.36	–3.41	NA	1.72	54.0
Standard Federal Bank	12	6	15	5	0.40	6.53	30.6	–35	70	75	24.1	1.48	1.31	1.12	1.42	11.3
TCF Financial	12	7	21	NM	0.40	5.71	7.2	–48	32	32	56.7	1.53	–2.85	NA	2.46	8.1
OFFICE EQUIPMENT & COMPUTERS																
INDUSTRY AVERAGE		**23**	**15**	**17**	**0.39**	**1.21**	**74.4**	**–9**	**55**	**244**	**151.5**	**1.34**	**1.72**	**2.93**	**2.32**	**23.5**
BUSINESS MACHINES, SERVICES & SUPPLIES																
GROUP AVERAGE		**15**	**10**	**10**	**0.45**	**2.20**	**30.3**	**–27**	**52**	**118**	**89.1**	**1.33**	**1.36**	**1.89**	**1.59**	**15.6**
Anacomp	09	2	–2	6	0.00	0.00	37.6	–55	15	45	59.4	0.20	0.31	0.41	0.45	18.2
Businessland	06	1	6	NM	0.00	0.00	29.8	–87	55	79	112.7	1.08	–0.80*	NA	–0.57	95.6
Deluxe	12	34	8	17	1.16	3.44	84.4	–3	58	334	27.5	1.79	2.03	2.24	2.30	3.6
Diebold	12	35	29	15	1.50	4.26	13.2	–8	73	132	74.0	2.75	2.28	2.48	3.19	6.9
Egghead	03	11	6	16	0.00	0.00	16.6	–5	32	45	141.9	–0.47	0.66	NA	0.72	7.4
HON Industries	12	15	4	12	0.30	2.03	33.0	–24	25	45	19.8	0.79	1.27	1.14	1.35	3.7
Inacomp Computer Centers	07	6	7	6	0.00	0.00	7.1	–30	52	41	140.6	0.87	0.95*	1.69	1.30	10.4
Intelligent Electronics	10	18	8	9	0.00	0.00	13.1	42	54	59	351.2	1.03	2.09*	3.67	2.43	5.9
Merisel	12	2	5	11	0.00	0.00	24.2	–34	38	57	78.4	0.81	0.18	0.21	0.73	44.3
Miller (Herman)	05	18	13	10	0.52	2.83	25.7	–1	60	104	70.0	1.82	1.92	2.05	2.13	1.4
Pitney Bowes	12	36	19	12	1.20	3.33	78.6	–24	75	443	56.4	2.27	3.02	3.24	3.61	3.5
Reynolds & Reynolds	09	15	22	7	0.80	5.29	10.5	–38	77	91	43.5	2.53	2.30*	2.18	2.34	9.8
Smith Corona	06	6	2	6	0.20	3.20	30.3	–55	22	56	77.2	NA	1.11*	NA	0.68	9.7
Standard Register	12	9	11	8	0.56	5.97	29.4	–42	73	91	46.9	1.35	1.16	1.27	1.27	10.5
Wallace Computer Services	07	19	13	10	0.50	2.63	21.4	–38	66	153	37.3	1.76	1.86*	2.12	1.97	2.7
COMPUTERS & PERIPHERALS																
GROUP AVERAGE		**25**	**19**	**22**	**0.43**	**0.84**	**97.6**	**3**	**57**	**315**	**189.0**	**1.14**	**1.85**	**3.63**	**2.73**	**32.3**
AM International	07	1	4	NM	0.00	0.00	46.8	–69	28	46	40.6	0.47	–1.00*	NA	0.20	106.1
Amdahl	12	14	12	9	0.10	0.72	109.9	–3	44	193	67.6	1.39	1.62	3.51	1.56	11.5
Apple Computer	09	37	12	10	0.48	1.31	119.7	0	67	492	300.6	3.53	3.77*	7.52	4.16	9.3
AST Research	06	27	13	11	0.00	0.00	14.1	215	46	90	617.5	–0.64(b)	2.41*	1.79	2.92	11.1
Commodore International	06	10	8	198	0.00	0.00	32.4	–6	22	43	72.3	1.55	0.05*	0.07	0.17	34.6
Compaq Computer	12	53	20	11	0.00	0.00	85.7	46	78	480	299.1	3.89	4.81	10.00	5.49	8.5
Conner Peripherals	12	26	10	11	0.00	0.00	56.5	181	49	176	389.3	1.09	2.38	3.79	3.18	13.8
Control Data	12	10	10	10	0.00	0.00	42.5	–45	76	178	76.1	–16.11	1.00	NA	1.52	21.2
Cray Research	12	30	22	7	0.00	0.00	27.5	–26	79	241	136.5	3.02	4.10	4.48	4.35	9.3
Data General	09	4	13	NM	0.00	0.00	30.2	–64	63	122	84.0	–4.10	–4.65*	NA	–0.72	118.6
Digital Equipment	06	52	67	88	0.00	0.00	119.2	–38	73	682	120.8	8.45	0.59*	2.12	3.97	24.5
Hewlett-Packard	10	30	26	10	0.42	1.40	242.4	–35	47	676	56.3	3.52	3.06*	4.09	3.31	8.8
International Business Machines	12	114	71	11	4.84	4.26	571.1	20	51	1390	65.7	6.47	10.12	8.08	10.98	4.5
Maxtor	03	5	9	5	0.00	0.00	22.9	–41	51	84	396.1	0.90	0.95	0.74	1.52	36.0
NCR	12	57	27	10	1.40	2.47	65.0	–11	70	462	97.2	5.38	5.78	7.07	6.13	7.8
Quantum	03	22	8	8	0.00	0.00	25.4	105	58	115	501.6	1.71	2.57	2.43	3.05	5.2
Seagate Technology	06	9	11	5	0.00	0.00	63.5	–36	46	161	307.6	0.01	1.92*	0.83	1.43	34.0
Storage Technology	12	20	15	9	0.00	0.00	32.7	118	75	142	192.9	1.40	2.21	1.38	2.52	8.9
Sun Microsystems	06	21	12	17	0.00	0.00	98.4	40	50	265	343.8	0.76	1.21*	2.01	1.62	14.3
Tandem Computers	09	12	11	11	0.00	0.00	105.4	–45	72	366	136.2	1.17	1.13*	1.63	1.21	9.4
Tandy	06	28	21	8	0.60	2.11	79.5	–28	65	355	67.7	3.64	3.54*	4.45	3.79	6.0
Unisys	12	3	13	NM	0.00	0.00	161.9	–80	51	365	112.8	–4.71	–2.98	NA	0.02	3573.7
Wang Laboratories	06	3	3	NM	0.00	0.00	165.4	–44	32	145	34.2	–1.96	–3.82*	NA	–0.17	215.4
Western Digital	06	5	11	6	0.00	0.00	29.2	–42	57	104	140.0	1.18	0.82*	0.94	0.81	46.5
Xerox	12	35	51	7	3.00	8.63	92.2	–40	76	498	68.9	6.56	4.70	5.70	5.24	9.3
COMPUTER SOFTWARE & SERVICES																
GROUP AVERAGE		**31**	**13**	**15**	**0.18**	**0.58**	**83.3**	**–11**	**53**	**258**	**151.1**	**1.92**	**1.98**	**2.78**	**2.38**	**13.3**
Automatic Data Processing	06	54	15	19	0.70	1.30	73.8	9	67	465	57.0	2.53	2.88*	3.55	3.26	0.8
Comdisco	09	16	14	8	0.28	1.71	39.6	–36	48	132	60.8	2.57	2.09*	2.67	2.52	5.8
Computer Associates Intl.	03	8	6	9	0.05	0.64	185.2	–37	48	299	84.5	0.85	0.88	1.60	1.06	11.9
Computer Sciences	03	49	31	12	0.00	0.00	16.0	–15	67	186	90.8	4.07	3.99	5.41	4.50	4.5
Electronic Data Systems	12	36	21	17	0.56	1.56	99.2	34	41	249	44.4	1.81	2.08	2.66	2.35	2.0
Intergraph	12	13	14	10	0.00	0.00	47.9	–29	56	164	161.7	1.48	1.28	1.45	1.43	10.4
Lotus Development	12	23	8	13	0.00	0.00	42.3	–25	86	280	353.1	1.61	1.80	2.21	2.25	13.3
Microsoft	06	72	9	31	0.00	0.00	113.7	70	29	298	217.2	1.52	2.34*	3.80	3.13	5.1
Oracle Systems	05	8	3	16	0.00	0.00	131.9	–66	36	253	290.9	0.86	0.49	1.64	0.88	65.8

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD	SHRS OUT MILS.	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER %	EARNINGS PER SHARE 1991 ESTIMATES 1989 ACTUAL	1990 ANALYST EST	BASED ON 5-YEAR TREND	FROM ANALYSTS CONSENSUS	FROM ANALYSTS VARIATION %
19 PAPER & FOREST PRODUCTS																
INDUSTRY AVERAGE		**29**	**27**	**10**	**1.20**	**4.11**	**60.1**	**–28**	**58**	**270**	**57.5**	**4.28**	**3.02**	**5.69**	**3.06**	**16.1**
(a) **FOREST PRODUCTS**																
GROUP AVERAGE		**22**	**26**	**9**	**1.10**	**4.43**	**58.6**	**–45**	**56**	**246**	**74.8**	**4.41**	**2.30**	**6.14**	**2.54**	**24.6**
Boise Cascade	12	25	34	14	1.52	6.14	37.9	–44	64	238	88.8	6.19	1.73	4.31	1.43	35.1
Georgia-Pacific	12	34	34	8	1.60	4.78	86.7	–31	65	473	71.6	7.42	4.40	8.19	3.88	20.4
Louisiana-Pacific	12	25	33	8	1.08	4.41	37.5	–44	51	229	65.9	5.04	3.08	7.23	2.86	30.4
Pope & Talbot	12	14	18	7	0.72	5.33	11.6	–49	54	82	49.5	3.35(b)	1.99	4.95	1.83	27.8
Weyerhaeuser	12	20	21	10	1.20	6.15	204.8	–29	58	523	39.0	1.56	1.98	2.68	1.87	20.4
Willamette Industries	12	38	39	7	1.60(c)	4.18	25.4	–30	62	152	35.8	7.52	5.54	9.47	5.11	13.4
WTD Industries	04	1	5	NM	0.00	0.00	6.2	–88	35	28	173.3	–0.24	–2.60	NA	0.80	NM
(b) **PAPER**																
GROUP AVERAGE		**33**	**28**	**10**	**1.25**	**3.93**	**60.9**	**–18**	**60**	**283**	**48.1**	**4.21**	**3.41**	**5.49**	**3.35**	**12.1**
Bowater	12	21	26	9	1.20	5.71	35.6	–24	65	135	77.5	3.86	2.39	3.75	2.07	14.5
Champion International	12	25	40	11	1.10	4.38	93.0	–21	69	388	72.1	4.43(b)	2.38	4.59	2.10	17.3
Chesapeake	12	14	15	13	0.72	5.01	20.5	–28	51	67	20.0	2.31	1.13	2.40	1.33	28.6
Consolidated Papers	12	35	21	10	1.28	3.71	43.6	–22	23	125	20.5	3.85	3.43	4.22	3.21	7.9
Glatfelter (P. H.)	12	37	19	10	1.20	3.25	22.6	–19	74	91	8.9	3.85	3.62	5.23	3.92	6.7
International Paper	12	49	48	8	1.68	3.41	117.2	–6	63	535	76.9	7.72	6.40	13.70	5.64	11.4
James River Corp. of Virginia	04	23	26	9	0.60	2.62	81.2	–19	78	272	48.7	2.45	2.68	3.09	2.85	11.5
Kimberly-Clark	12	79	28	13	2.72	3.43	79.9	7	58	505	54.4	5.26	5.88	7.07	6.29	3.1
Mead	12	25	28	10	1.00	4.08	62.3	–34	57	287	68.8	3.33	2.45	4.43	2.43	15.5
Potlatch	12	28	31	7	1.32	4.71	29.0	–24	46	203	37.0	4.79	3.93	6.95	3.64	9.3
Scott Paper	12	36	30	10	0.80	2.24	73.6	–26	72	413	62.8	5.11	3.69	5.78	4.20	8.2
Union Camp	12	34	27	10	1.56	4.66	68.3	–10	73	404	53.2	4.35	3.38	5.98	3.08	15.5
Westvaco	10	27	24	9	1.05	3.89	65.1	11	51	251	24.5	3.45	2.90*	4.11	2.73	8.1
20 PUBLISHING & BROADCASTING																
INDUSTRY AVERAGE		**55**	**23**	**17**	**0.87**	**1.98**	**82.7**	**–31**	**47**	**240**	**48.0**	**2.81**	**2.27**	**5.98**	**2.76**	**41.1**
(a) **BROADCASTING**																
GROUP AVERAGE		**89**	**30**	**20**	**0.52**	**0.41**	**104.1**	**–29**	**44**	**233**	**55.2**	**4.74**	**4.12**	**14.28**	**4.69**	**98.2**
American TV & Communications	12	35	4	31	0.00	0.00	109.1	–22	16	129	20.0	0.87	1.13	1.52	1.49	4.6
Capital Cities/ABC	12	421	195	15	0.20	0.05	16.9	–28	92	499	43.8	27.25	28.29	39.18	30.44	7.3
CBS	12	173	109	18	4.40	2.54	23.7	–8	77	360	53.1	11.54	9.73	11.91	9.02	15.5
Comcast	12	11	0	NM	0.12	1.08	112.9	–34	27	202	46.6	–1.39	–1.59	NA	–1.37	11.1
LIN Broadcasting	12	58	–2	NM	0.00	0.00	51.4	–52	39	262	138.7	1.07	–3.13	NA	–2.00	NM
Multimedia	12	60	–40	15	0.00	0.00	11.3	–36	66	107	94.6	3.11	3.98	4.53	4.81	8.8
Tele-Communications	12	12	2	NM	0.00	0.00	356.0	–32	65	402	92.8	–0.73	–0.56	NA	–0.40	61.7
Turner Broadcasting	12	12	–5	NM	0.00	0.00	149.2	31	5	44	2.1	–0.13	–0.32	NA	0.14	191.9
Viacom	12	22	4	NM	0.00	0.00	106.7	–22	8	88	4.8	1.07	–0.45	NA	0.06	484.7
(b) **PUBLISHING**																
GROUP AVERAGE		**38**	**19**	**17**	**1.05**	**2.76**	**72.0**	**–32**	**49**	**243**	**44.3**	**1.85**	**1.29**	**3.43**	**1.75**	**12.5**
Affiliated Publications	12	8	3	20	0.24	2.95	70.1	–34	50	118	27.9	0.63	0.40	0.61	0.43	19.2
Commerce Clearing House	12	44	14	20	1.40	3.16	17.8	3	63	114	18.1	1.92	2.18	2.08	2.69	5.0
Dow Jones	12	23	14	21	0.76	3.25	100.9	–30	36	204	22.3	1.52	1.14	NA	1.27	10.4
Dun & Bradstreet	12	39	12	14	2.12	5.51	178.7	–19	71	673	47.5	3.14	2.79	3.37	2.99	2.6
Gannett	12	35	13	15	1.20	3.44	160.1	–20	67	519	39.5	2.47	2.39	2.83	2.47	6.4
Harcourt Brace Jovanovich	12	1	–19	NM	0.00	0.00	72.9	–76	20	122	123.3	–4.14	–1.30	NA	–1.40	34.5
Knight-Ridder	12	40	18	13	1.32	3.29	49.3	–34	60	255	34.6	3.43	3.14	3.59	3.23	8.6
McGraw-Hill	12	49	18	NA	2.16	4.43	48.9	–14	58	392	84.1	0.82	††	1.96	††	††
Media General	12	16	10	18	0.44	2.79	25.9	–50	60	99	21.1	0.80	0.88	0.64	0.99	8.9
Meredith	06	23	20	NM	0.64	2.81	16.8	–41	59	129	39.0	1.75	–0.08*	NA	1.77	2.2
New York Times	12	18	14	19	0.56	3.07	76.2	–33	49	235	39.5	0.87	0.94	0.94	0.99	20.6
Readers Digest Association	06	26	5	17	0.60	2.32	119.4	NA	22	141	NA	1.28	1.48*	NA	1.69	3.3
Scripps (E. W.)	12	16	9	16	0.40	2.50	76.5	–33	13	74	10.2	1.14	0.97	1.32	1.06	10.4
Time Warner	12	83	113	NM	1.00	1.21	57.5	31	58	461	84.2	–4.34	–12.17	NA	–8.60	32.2
Times Mirror	12	26	15	17	1.08	4.21	128.5	–29	41	307	26.0	2.30	1.53	1.88	1.60	17.9
Tribune	12	37	10	16	0.96	2.59	64.1	–27	37	251	42.7	3.17	2.28	2.96	2.78	12.0
Washington Post	12	184	73	13	4.00	2.17	11.9	–38	54	206	21.6	15.50	14.70	21.47	14.74	6.1
Western Publishing Group	01	11	9	15	0.00	0.00	21.1	–42	64	75	71.1	1.05	0.73	0.90	1.00	0.0
21 SERVICE INDUSTRIES																
INDUSTRY AVERAGE		**22**	**11**	**15**	**0.39**	**1.75**	**42.6**	**–8**	**48**	**153**	**54.2**	**1.30**	**1.58**	**2.17**	**1.84**	**8.3**
(a) **CONSTRUCTION & ENGINEERING**																
GROUP AVERAGE		**25**	**13**	**16**	**0.36**	**1.49**	**22.4**	**0**	**45**	**131**	**64.9**	**1.10**	**1.70**	**1.93**	**1.99**	**9.6**
[illegible] Enterprises	02	17	8	13	0.24	1.38	13.6	13	30	58	57.1	1.04	1.36	1.54	1.60	2.6
A[illegible] Foy F.)	12	9	15	27	0.48	5.41	8.8	–44	19	37	26.9	–5.11	0.32	0.10	0.53	62.4
B[illegible]	12	15	11	8	0.00	0.00	4.5	–16	18	28	45.3	2.15	1.79	2.35	1.89	11.9
[illegible] CRS	06	11	10	9	0.12	1.07	13.5	–37	77	86	59.8	1.15	1.31*	1.89	1.20	9.2
EG&G	12	35	12	13	0.76	2.18	27.8	–2	61	212	50.9	2.40	2.68	2.79	2.99	3.8
Fluor	10	39	10	22	0.24	0.62	80.3	7	68	408	89.5	1.35	1.75	NA	2.22	8.2

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[illegible] BUSINESS WEEK [illegible] by McGraw-Hill. the Scoreboard does not include forecasts of the company's earnings

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P-E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD %	SHRS. OUT. MILS.	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER %	EARNINGS PER SHARE 1989 ACTUAL	EARNINGS PER SHARE 1990 ANALYST EST.	1991 ESTIMATES BASED ON 5-YEAR TREND	1991 ESTIMATES FROM ANALYSTS CONSENSUS	1991 ESTIMATES FROM ANALYSTS VARIATION %
Foster Wheeler	12	23	14	21	0.50	2.20	35.4	10	63	195	86.9	0.95	1.11	0.97	1.37	6.0
Granite Construction	12	20	11	12	0.10	0.51	11.5	NA	13	45	NA	1.42	1.67	NA	1.93	2.6
Jacobs Engineering Group	09	25	7	19	0.00	0.00	11.2	87	26	43	65.1	0.95	1.28*	2.27	1.51	0.7
Morrison Knudsen	12	41	23	14	1.48	3.58	11.5	–10	79	187	116.8	2.81	2.91	2.62	3.48	5.2
Thermo Electron	12	29	14	18	0.00	0.00	20.4	8	34	117	54.5	1.35	1.65	1.95	1.95	4.3
Wheelabrator Technologies	12	35	13	20	0.00	0.00	40.6	0	NA	NA	49.4	1.50	1.76	NA	2.13	3.1
Zurn Industries	03	32	18	13	0.76	2.38	12.4	–21	52	154	76.4	2.28	2.53	2.86	3.03	5.0
(b) **INDUSTRIAL DISTRIBUTION GROUP AVERAGE**		**20**	**13**	**12**	**0.46**	**2.25**	**25.9**	**–18**	**54**	**118**	**40.7**	**1.66**	**1.66**	**2.77**	**1.90**	**8.3**
Arrow Electronics	12	4	12	10	0.00	0.00	11.9	4	17	25	44.4	–0.19	0.42	NA	0.55	16.3
Avnet	06	25	22	16	0.60	2.42	35.6	–21	84	183	60.5	1.51	1.57*	1.66	2.10	5.0
Castle (A. M.)	12	11	10	14	0.68	6.48	7.3	–18	46	28	6.6	1.20	0.76	2.31	1.10	12.9
Genuine Parts	12	37	13	14	1.38	3.72	76.5	–13	63	382	38.6	2.58	2.70	3.27	2.87	4.1
Grainger (W. W.)	12	62	29	14	1.16	1.86	27.2	–4	70	284	38.6	4.39	4.59	5.69	4.89	4.9
Marshall Industries	05	21	17	8	0.00	0.00	8.5	2	71	76	69.7	2.25	2.50	5.07	2.82	17.8
Premier Industrial	05	24	4	17	0.40	1.68	57.3	–7	21	111	6.7	1.29	1.41	1.79	1.55	2.4
TBC	12	11	6	9	0.00	0.00	13.9	–20	66	62	65.6	1.07	1.17	2.59	1.30	3.4
United Stationers	08	9	11	11	0.40	4.51	15.5	–44	59	52	65.7	1.60	0.83*	1.22	1.04	13.3
Univar	02	11	8	9	0.30	2.67	17.6	–15	25	32	6.4	1.22	1.30	2.67	1.40	7.1
Willcox & Gibbs	12	7	9	7	0.10	1.43	13.6	–57	75	60	45.3	1.30	0.99	1.41	1.25	3.6
(c) **POLLUTION CONTROL GROUP AVERAGE**		**21**	**6**	**18**	**0.29**	**1.24**	**215.4**	**3**	**33**	**425**	**60.2**	**1.06**	**1.19**	**1.75**	**1.43**	**3.7**
American Capital & Research	02	11	4	16	0.00	0.00	17.4	69	7	19	78.0	0.57	0.70	NA	0.85	1.2
Browning-Ferris Industries	09	21	7	13	0.64	3.03	151.7	–45	56	581	84.8	1.74	1.68*	2.24	2.03	8.3
Chemical Waste Management	12	19	4	22	0.16	0.83	206.9	–10	17	225	26.3	0.71	0.87	1.12	1.08	3.4
Waste Management	12	33	7	22	0.36	1.10	485.8	–2	52	875	51.7	1.22	1.49	1.90	1.79	2.0
(d) **PRINTING & ADVERTISING GROUP AVERAGE**		**25**	**12**	**12**	**0.68**	**2.51**	**32.8**	**–3**	**67**	**169**	**64.9**	**1.79**	**2.11**	**2.74**	**2.34**	**3.4**
Advo-System	09	12	4	12	0.00	0.00	12.8	32	67	63	116.7	0.34	0.95*	NA	1.14	5.5
Banta	12	23	16	11	0.56	2.41	12.7	0	61	86	66.1	1.86	2.18	2.24	2.37	2.7
Donnelley (R. R.) & Sons	12	37	20	12	0.96	2.59	77.8	–28	66	386	32.1	2.85	2.99	3.43	3.25	3.1
Interpublic Group	12	31	12	13	0.76	2.43	34.1	–6	76	185	47.7	2.10	2.36	2.82	2.66	1.4
Omnicom Group	12	22	11	10	1.10	5.12	26.4	–16	68	125	61.7	1.81	2.05	2.45	2.28	4.6
(e) **OTHER SERVICES GROUP AVERAGE**		**18**	**9**	**16**	**0.27**	**1.41**	**24.7**	**–13**	**42**	**108**	**49.0**	**1.05**	**1.26**	**1.72**	**1.53**	**10.6**
Adia Services	12	21	14	13	0.16	0.78	12.5	–16	23	48	36.8	1.63	1.58	2.32	1.70	11.3
Air & Water Technologies	10	18	9	50	0.00	0.00	22.4	15	47	73	45.6	–0.87	0.35	NA	1.20	8.3
CDI	12	8	6	11	0.00	0.00	19.7	–45	24	49	23.1	1.05	0.73	1.10	0.89	26.4
Handleman	04	10	7	7	0.40	4.16	32.8	–54	71	165	65.8	1.13	1.29	1.48	1.50	9.8
JWP	12	17	10	11	0.00	0.00	38.2	–3	53	164	86.9	1.27	1.57	2.58	1.83	9.0
Kelly Services	12	30	11	12	0.66	2.22	30.1	–24	27	100	21.7	2.36	2.40	3.18	2.61	6.2
Olsten	12	11	6	10	0.24	2.23	15.6	–35	39	70	27.1	1.17	1.08	1.57	1.20	10.5
Safety-Kleen	12	39	9	25	0.40	1.03	34.4	30	48	256	59.9	1.36	1.57	1.89	1.91	4.0
Service Corp. International	12	22	9	18	0.56	2.50	45.7	35	58	184	65.9	0.97	1.26	0.96	1.52	7.0
UNC	12	3	8	11	0.00	0.00	17.1	–45	46	50	73.8	0.00	0.27	0.34	0.40	17.7
Wackenhut	12	23	10	13	0.60	2.57	3.9	–5	30	29	32.4	1.52	1.77	1.74	2.11	6.6
22 **TELECOMMUNICATIONS INDUSTRY AVERAGE**		**36**	**18**	**15**	**1.60**	**3.99**	**268.2**	**–19**	**39**	**478**	**46.8**	**2.27**	**2.43**	**3.00**	**2.63**	**8.7**
(a) **EQUIPMENT & SERVICES GROUP AVERAGE**		**22**	**12**	**11**	**0.62**	**2.47**	**299.4**	**–35**	**41**	**424**	**86.0**	**1.33**	**1.45**	**3.07**	**1.56**	**18.0**
American Telephone & Telegraph	12	32	12	13	1.32	4.11	1089.1	–29	25	860	34.0	2.50	2.56	3.71	2.76	4.8
McCaw Cellular Communications	12	17	13	NM	0.00	0.00	178.9	–53	33	281	88.0	–1.95	–1.95	NA	–1.83	44.7
MCI Communications	12	20	9	8	0.10	0.50	253.0	–54	64	625	204.0	2.26	2.57	3.50	2.66	13.1
Pacific Telecom	12	26	13	13	1.16	4.46	38.4	13	6	42	6.5	1.91	1.99	2.44	2.16	10.9
Scientific-Atlanta	06	12	13	6	0.16	1.33	22.5	–49	57	185	99.2	1.53	1.90*	2.28	1.34	25.5
United Telecommunications	12	23	11	14	1.00	4.40	214.3	–38	60	552	84.4	1.72	1.61	3.43	2.27	9.3
(b) **TELEPHONE COMPANIES GROUP AVERAGE**		**42**	**20**	**17**	**2.02**	**4.64**	**254.9**	**–12**	**39**	**501**	**29.9**	**2.67**	**2.86**	**2.97**	**3.09**	**4.7**
Alltel	12	32	13	14	1.28	3.95	80.2	1	35	241	29.0	2.32	2.31	2.81	2.53	3.9
Ameritech	12	68	29	14	3.16	4.68	263.8	–3	30	563	22.0	4.59	4.80	5.16	5.08	1.4
Bell Atlantic	12	54	23	15	2.36	4.34	392.6	–3	32	655	24.9	2.72	3.58	3.43	3.84	1.7
BellSouth	12	54	26	15	2.68	5.01	481.9	–8	28	753	19.7	3.55	3.61	3.75	3.85	3.1
Centel	12	31	13	42	0.85	2.73	84.2	–21	55	299	32.0	0.11	0.74	0.28	0.90	9.8
Cincinnati Bell	12	23	9	15	0.76	3.34	60.5	–16	28	117	16.1	1.50	1.50	1.88	1.65	6.3
Contel	12	34	11	28	1.10	3.24	158.6	0	60	415	58.7	1.74	1.20	1.35	1.44	4.6
GTE	12	29	13	13	1.58	5.50	667.3	–17	53	822	33.8	2.08	2.23	2.33	2.32	8.2
Nynex	12	71	46	12	4.56	6.40	197.3	–22	38	660	38.1	4.10	6.10	5.41	6.52	6.1
Pacific Telesis Group	12	45	18	16	2.02	4.53	398.8	–15	37	763	29.1	3.02	2.84	3.14	3.11	2.5
Rochester Telephone	12	29	15	15	1.46	5.08	28.6	–19	34	166	26.6	2.00	1.86	1.96	2.12	8.8
Southern New England Tel.	12	31	18	13	1.76	5.75	61.8	–31	31	192	31.9	3.04	2.33	2.88	2.72	5.0
Southwestern Bell	12	55	28	14	2.76	5.01	300.0	–14	40	730	29.5	3.64	3.81	3.85	3.97	3.1
US West	12	37	23	12	2.00	5.39	392.4	–3	43	638	27.7	3.01	3.11	3.40	3.29	1.4

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P/E RATIO 1990 EST.	1990 DIVIDEND RATE	YIELD %	SHRS. OUT. MILS.	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS %	INSTITUTIONAL HOLDINGS NUMBER	1990 TURNOVER %	EARNINGS PER SHARE 1989 ACTUAL	EARNINGS PER SHARE 1991 ESTIMATES 1990 ANALYST EST.	EARNINGS PER SHARE 1991 ESTIMATES BASED ON 5-YEAR TREND	EARNINGS PER SHARE 1991 ESTIMATES FROM ANALYSTS CONSENSUS	EARNINGS PER SHARE 1991 ESTIMATES FROM ANALYSTS VARIATION %
TRANSPORTATION																
INDUSTRY AVERAGE		**25**	**24**	**15**	**0.64**	**3.01**	**47.9**	**–32**	**56**	**198**	**95.7**	**1.54**	**1.11**	**4.54**	**1.96**	**38.4**
AIRLINES																
GROUP AVERAGE		**26**	**25**	**21**	**0.15**	**0.39**	**45.1**	**–39**	**44**	**167**	**149.3**	**0.67**	**–1.40**	**11.53**	**0.33**	**85.2**
Alaska Air Group	12	16	22	14	0.20	1.26	13.2	–34	50	108	97.8	2.71	1.13	1.61	1.72	29.8
America West Airlines	12	6	5	NM	0.00	0.00	18.3	–40	7	31	109.5	0.61	–1.88	NA	–0.68	188.9
AMR	12	47	63	48	0.00	0.00	62.3	–18	73	406	189.9	7.16	0.98	2.09	3.19	32.4
Continental Airlines Holdings	12	3	–27	NM	0.00	0.00	41.3	–71	17	47	205.3	–22.71	–6.99	NA	–2.13	95.2
Delta Air Lines	06	57	56	10	1.20	2.11	46.1	–25	65	364	124.7	9.37	5.79*	8.83	–1.47	216.1
Midway Airlines	12	5	0	NM	0.00	0.00	10.1	–64	14	36	178.3	–2.17	–8.27	NA	–2.77	66.7
Pan Am	12	2	–6	NM	0.00	0.00	150.0	–42	16	88	60.1	–3.10	–2.78	NA	–1.58	46.7
Southwest Airlines	12	18	14	15	0.10	0.57	42.4	6	83	162	94.9	1.58	1.20	1.37	1.39	29.0
UAL	12	98	82	19	0.00	0.00	21.9	–43	43	213	312.3	14.96	5.18	43.75	7.63	52.0
USAir Group	12	14	37	NM	0.00	0.00	45.2	–57	69	210	119.9	–1.73	–8.39	NA	–1.95	95.5
RAILROADS																
GROUP AVERAGE		**36**	**33**	**19**	**1.33**	**3.52**	**94.4**	**–20**	**57**	**375**	**59.6**	**2.98**	**3.56**	**3.27**	**3.87**	**11.6**
Burlington Northern	12	26	16	8	1.20	4.55	76.0	–16	66	398	79.2	3.19	3.23	2.16	3.46	9.7
Consolidated Rail	12	38	64	9	1.60	4.21	40.6	–52	82	314	137.1	2.17	4.45	2.90	4.64	9.2
CSX	12	30	35	8	1.40	4.71	98.5	–16	56	403	39.3	4.09	3.57	4.28	3.73	7.6
Kansas City Southern Industries	12	37	35	9	1.08	2.92	10.4	–18	46	76	38.4	3.55	3.90	3.37	4.20	7.6
Norfolk Southern	12	40	31	11	1.60	4.05	162.7	–7	61	573	38.4	3.48	3.60	3.69	3.83	6.7
Santa Fe Pacific	12	14	7	73	0.10	0.73	172.8	–19	27	262	37.3	–1.23	0.19	0.15	0.75	35.6
Union Pacific	12	67	40	11	2.32	3.46	99.6	–13	62	600	47.5	5.62	5.97	6.36	6.46	4.7
TRANSPORTATION SERVICES																
GROUP AVERAGE		**18**	**21**	**8**	**0.70**	**5.60**	**31.0**	**–32**	**71**	**163**	**78.7**	**1.83**	**2.25**	**3.19**	**2.65**	**12.2**
Airborne Freight	12	17	14	9	0.30	1.82	18.8	11	63	105	100.6	1.34	1.91	1.55	2.06	13.5
Avondale Industries	12	5	17	3	0.92	17.95	14.9	–63	52	61	84.2	0.12	1.72	1.44	1.70	7.8
Federal Express	05	30	32	11	0.00	0.00	53.1	–34	75	295	95.1	2.18	2.69	2.55	3.93	20.9
Gatx	12	24	27	7	1.10	4.68	19.2	–30	85	140	44.3	3.18	3.53	5.35	3.84	8.1
PHH	04	21	22	7	1.20	5.82	16.9	–38	81	144	55.8	3.38	2.88	3.19	3.16	7.9
Ryder System	12	14	19	13	0.60	4.29	73.3	–34	77	252	73.5	0.58	1.11	0.75	1.44	19.7
Trinity Industries	03	17	16	9	0.80	4.64	21.2	–34	66	142	97.3	2.06	1.90	7.53	2.43	7.6
TRUCKING & SHIPPING																
GROUP AVERAGE		**18**	**17**	**12**	**0.61**	**3.57**	**25.3**	**–33**	**57**	**112**	**75.2**	**1.10**	**1.10**	**1.77**	**1.73**	**26.4**
Alexander & Baldwin	12	22	14	9	0.88	4.00	46.1	–41	44	154	57.3	4.38	2.54	4.17	2.49	17.6
American President	12	15	26	NM	0.60	4.10	18.8	–51	71	88	48.9	–0.04	–0.60	NA	0.89	42.0
Carolina Freight	12	11	19	16	0.60	5.45	6.6	–41	66	48	30.4	0.16	0.71	0.26	1.37	29.4
Consolidated Freightways	12	12	16	NM	0.00	0.00	35.0	–55	79	169	140.9	0.02	–0.88	NA	1.27	52.8
Hunt (J. B.) Transport Services	12	18	8	13	0.24	1.37	23.4	–12	28	64	55.3	1.30	1.32	1.66	1.44	8.7
Preston	12	8	16	13	0.50	6.45	5.8	–34	41	37	108.2	–0.15	0.61	0.50	0.97	35.1
Roadway Services	12	34	19	12	1.10	3.26	39.0	–20	62	178	57.0	2.44	2.77	2.71	2.95	10.6
Yellow Freight System	12	24	16	10	0.94	3.90	28.1	–12	66	155	103.3	0.65	2.35	1.34	2.45	14.8
UTILITIES																
INDUSTRY AVERAGE		**29**	**22**	**13**	**1.84**	**6.26**	**100.8**	**–9**	**44**	**253**	**44.6**	**2.29**	**2.47**	**2.79**	**2.71**	**7.2**
ELECTRIC																
GROUP AVERAGE		**28**	**22**	**11**	**1.89**	**6.50**	**127.4**	**–7**	**43**	**274**	**43.6**	**2.32**	**2.67**	**2.76**	**2.81**	**6.3**
Allegheny Power System	12	37	30	10	3.16	8.45	53.3	–10	41	244	34.5	3.72	3.72	3.81	3.86	2.5
American Electric Power	12	28	23	9	2.40	8.50	184.5	–18	40	432	36.1	3.25	3.07	3.44	3.16	3.9
American Water Works	12	16	17	9	0.80	5.16	30.6	–14	44	102	17.9	1.56	1.71	1.72	1.93	7.5
Baltimore Gas & Electric	12	29	25	12	2.10	7.27	83.1	–13	41	289	44.0	3.05	2.44	2.81	2.93	6.1
Boston Edison	12	19	20	11	1.52	7.95	38.9	–3	26	107	48.0	–0.88	1.68	1.48	1.94	5.1
Carolina Power & Light	12	45	29	10	2.92	6.49	80.4	–11	48	319	41.8	4.20	4.30	3.63	4.34	2.7
Centerior Energy	12	18	20	10	1.60	9.14	138.7	–16	29	159	44.3	1.90	1.81	1.52	1.93	6.7
Central & South West	12	45	29	12	2.76	6.15	94.1	12	53	416	48.4	3.25	3.74	3.47	3.89	4.1
Cincinnati Gas & Electric	12	30	26	7	2.40	7.97	51.8	–3	43	173	45.0	4.34	4.10	4.50	3.70	9.8
CMS Energy	12	27	25	7	0.48	1.79	80.8	–30	64	210	47.3	3.80	3.82	7.54	3.83	8.1
Commonwealth Edison	12	34	30	15	3.00	8.82	212.1	–10	52	500	48.6	2.83	2.31	2.09	3.33	6.4
Consolidated Edison Co. of N. Y.	12	23	20	10	1.82	7.91	228.2	–21	30	407	33.8	2.49	2.35	2.55	2.42	4.1
Detroit Edison	12	30	17	9	1.78	6.03	146.9	16	34	285	46.3	2.65	3.12	3.19	3.20	4.4
Dominion Resources	12	47	35	11	3.44	7.34	102.7	1	40	358	46.5	4.14	4.36	4.63	4.53	2.4
Duke Power	12	31	19	12	1.64	5.31	202.6	10	48	380	39.7	2.57	2.56	2.71	2.65	3.2
Entergy	12	22	22	10	1.20	5.42	188.0	–12	81	297	51.4	–2.31	2.19	2.10	2.30	6.7
Florida Progress	12	38	28	11	2.74	7.21	51.5	–4	33	235	53.0	3.67	3.50	3.56	3.68	2.5
FPL Group	12	28	21	10	2.36	8.50	136.3	–22	51	431	40.9	3.12	2.82	3.02	2.91	6.1
General Public Utilities	12	46	40	9	2.60	5.68	55.4	–3	70	232	59.0	5.01	5.09	7.73	5.21	2.7
Gulf States Utilities	12	10	18	31	0.00	0.00	108.1	–16	51	137	58.8	–0.46	0.33	0.21	0.85	36.8
Houston Industries	12	36	29	13	2.96	8.22	127.7	4	62	396	49.3	3.32	2.71	2.67	3.00	5.5
Illinois Power	12	15	21	20	0.00	0.00	75.6	–20	54	114	56.9	–4.34	0.76	0.63	1.56	16.8
Long Island Lighting	12	20	19	9	1.50	7.36	111.3	1	58	167	54.4	–1.57	2.28	1.72	2.38	5.6
New England Electric System	12	26	21	11	2.04	7.88	64.0	–9	33	212	32.5	2.36	2.46	2.23	2.61	7.0

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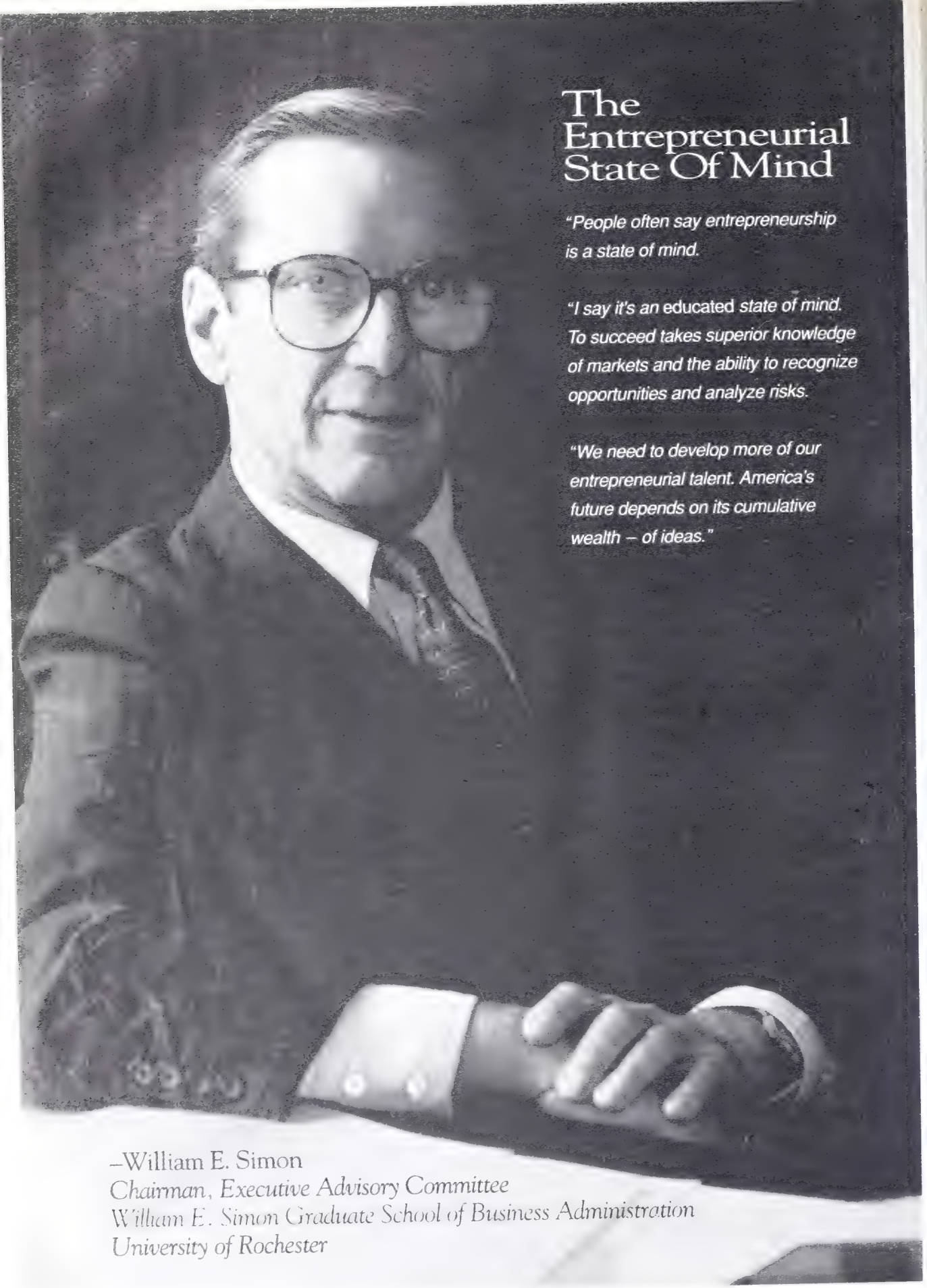

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INVESTMENT OUTLOOK SCOREBOARD

COMPANY	FY	RECENT SHARE PRICE	BOOK VALUE PER SHARE	P E RATIO 1990 EST	1990 DIV DEND RATE	YIELD %	SHRS OUT MILS	1990 MARKET VALUE CHANGE %	INSTITUTIONAL HOLDINGS NUMBER		1990 TURN-OVER %	EARNINGS PER SHARE 1991 ESTIMATES 1989 ACTUAL	1990 ANALYST EST	BASED ON 5-YEAR TREND	FROM ANALYSTS CON-SENSUS	FROM ANALYSTS VARIA-TION %
New York State Electric & Gas	12	25	22	10	2.08	8.40	58.3	–13	35	153	35.7	2.53	2.57	2.05	2.69	4.4
Niagara Mohawk Power	12	13	15	11	0.00	0.00	136.1	–10	47	193	41.3	0.78	1.21	0.54	1.55	11.3
Nipsco Industries	12	19	14	10	1.04	5.51	69.0	–3	72	159	42.3	1.72	1.80	1.97	1.92	4.3
Northeast Utilities	12	20	16	10	1.76	8.86	109.1	11	38	207	31.8	1.87	2.04	1.71	2.07	5.9
Northern States Power	12	33	25	11	2.32	7.00	62.5	–17	36	258	30.9	3.24	3.00	3.14	3.13	7.2
Ohio Edison	12	18	17	9	1.50	8.51	152.6	–26	24	249	46.7	2.18	1.91	1.63	1.80	5.6
Pacific Gas & Electric	12	25	18	12	1.52	6.11	419.4	11	39	386	27.9	1.90	2.08	1.71	2.09	2.9
PacifiCorp	12	22	12	12	1.44	6.62	252.6	–2	30	374	28.3	1.81	1.89	1.89	1.97	5.9
Pennsylvania Power & Light	12	44	29	11	2.98	6.85	75.5	2	32	237	26.3	4.05	4.14	4.72	4.24	2.9
Philadelphia Electric	12	17	17	9	1.20	7.16	215.2	–26	24	232	48.2	2.36	1.95	1.99	1.88	9.5
Pinnacle West Capital	12	11	17	11	0.00	0.00	86.9	0	44	137	83.7	1.44	1.05	0.33	1.48	14.4
Potomac Electric Power	12	20	15	10	1.52	7.55	99.2	–15	26	261	38.9	2.16	1.92	2.13	2.11	7.6
Public Service Co. of Colorado	12	22	18	9	2.00	9.09	53.9	–14	39	162	78.8	2.59	2.39	2.70	2.36	5.1
Public Service Enterprise Group	12	27	20	10	2.08	7.85	211.8	–9	37	386	28.6	2.62	2.59	2.69	2.72	3.5
San Diego Gas & Electric	12	45	23	13	2.70	6.03	55.9	1	19	148	21.6	3.15	3.34	3.20	3.37	2.1
SCEcorp	12	39	25	11	2.64	6.86	218.5	–2	35	490	29.0	3.56	3.59	3.67	3.62	4.3
Southern	12	27	22	10	2.14	7.96	315.7	–8	32	425	34.8	2.68	2.65	2.41	2.72	3.5
Texas Utilities	12	38	35	8	2.96	7.89	195.2	14	62	527	102.4	4.44	4.58	4.44	4.19	5.1
Union Electric	12	29	20	10	2.16	7.55	102.1	0	41	221	30.4	2.61	2.78	2.61	2.84	3.5
Wisconsin Energy	12	31	20	11	1.76	5.61	67.4	–2	42	261	33.4	2.88	2.84	3.06	2.98	2.1
GAS & TRANSMISSION GROUP AVERAGE		**32**	**20**	**16**	**1.73**	**5.72**	**42.5**	**–12**	**46**	**207**	**46.6**	**2.20**	**2.04**	**2.86**	**2.49**	**9.3**
Arkla	12	21	7	17	1.08	5.17	86.9	–23	65	338	57.8	–0.80	1.26	1.30	1.57	6.6
Atlanta Gas Light	09	31	18	15	2.04	6.61	22.2	3	20	111	30.3	1.90	2.02*	2.15	2.44	3.2
Brooklyn Union Gas	09	30	22	14	1.84	6.21	24.7	–7	27	111	19.4	2.52	2.14*	2.37	2.60	2.9
Columbia Gas System	12	50	33	21	2.20	4.42	47.8	0	47	306	61.4	3.21	2.34	2.88	3.28	10.9
Consolidated Natural Gas	12	47	21	22	1.84	3.88	86.2	–2	39	383	23.0	2.20	2.18	2.12	2.81	13.3
Diversified Energies	12	35	15	21	1.60	4.52	16.1	–6	39	92	88.8	1.63	1.69	1.76	2.42	4.3
Eastern Enterprises	12	28	23	11	1.40	4.93	23.1	19	74	168	49.6	2.43	2.57	3.90	2.83	5.2
Enron	12	57	32	23	2.48	4.32	50.4	0	53	308	38.3	4.03	2.48	3.17	3.01	14.7
Enserch	12	22	11	24	0.80	3.58	64.7	–16	68	217	44.6	0.93	0.94	4.85	1.39	17.3
MCN	12	21	13	12	1.64	7.76	23.9	–7	43	106	34.0	2.20	1.78	NA	2.27	4.3
National Fuel Gas	09	24	17	13	1.42	6.01	28.5	–14	30	99	18.9	1.93	1.83*	1.79	2.13	9.7
Nicor	12	46	23	12	2.12	4.58	29.0	–2	52	225	54.0	3.98	3.83	11.08	4.10	2.4
Pacific Enterprises	12	40	24	14	3.48	8.70	69.9	–20	26	262	25.6	3.05	2.95	3.25	3.20	8.3
Panhandle Eastern	12	12	16	14	0.80	6.74	89.6	–59	60	319	113.4	0.97	0.86	0.64	1.17	23.9
Peoples Energy	09	25	18	12	1.66	6.74	32.7	–4	38	185	25.9	2.39	2.07*	2.13	2.44	2.8
Sonat	12	51	27	24	2.00	3.91	42.9	9	62	318	57.2	2.67	2.13	2.49	2.72	10.3
Southwest Gas	12	14	17	8	1.40	10.18	19.8	–18	29	78	27.9	2.15	1.71	1.98	1.82	8.6
Transco Energy	12	38	21	17	1.36	3.59	30.5	–21	48	192	56.9	3.10	2.19	NA	2.97	15.0
Washington Gas Light	09	27	20	11	2.04	7.49	19.5	–13	25	100	22.3	2.43	2.51*	2.51	2.58	2.2
Williams	12	28	24	20	1.40	5.05	41.3	–28	69	217	83.8	1.17	1.36	1.07	1.96	19.1

ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

P **10c**
bott Laboratories **12d**
ia Services **21e**
vanced Micro **9d**
vo-System **21d**
tna Life & Casualty **17b**
iliated Pubs. **20b**
manson (H. F.) **17c**
& Water Techs **23e**
Products & Chemicals **4**
borne Freight **23c**
aska Air Group **23a**
pany International **15d**
berto-Culver **6d**
bertson's **10c**
co Standord **5**
oa **16a**
exander & Alex **17a**
exander & Baldwin **23d**
eghany **17a**
eghany Ludlum **16b**
eghany Power **24a**
ergan **12b**
ied-Signal **5**
tel **22b**
M International **18b**
nax **16a**
nbase **17b**
ndahl **18b**

Amerada Hess **11b**
America West **23a**
American Brands **6e**
American Capital **21c**
American Cyanamid **4**
American Electric **24a**
American Express **17a**
American Family **17b**
American General **17b**
American Greetings **14d**
American Home **12b**
American Intl. Group **17b**
American National **17b**
American President **23d**
American Stores **10c**
American TV **20a**
American Water **24a**
Ameritech **22b**
Ametek **9c**
Amoco **11b**
AMP **9d**
AMR **23a**
Anacomp **18a**
Analog Devices **9d**
Anheuser-Busch **6c**
Aon **17b**
Apogee Enterprises **21a**
Apple Computer **18b**
Applied Materials **15c**
Archer Daniels **10b**

Arco Chemical **4**
Arkla **24b**
Armco **16b**
Armstrong World **6b**
Arrow Electronics **21b**
Arvin Industries **2b**
Asarco **16c**
Ashland Oil **11b**
Asset Investors **13b**
AST Research **18b**
AT&T **22a**
Atkinson (G. F.) **21a**
Atlanta Gas Light **24b**
Atlantic Richfield **11b**
Automatic Data **18c**
Avery Dennison **15a**
Avnet **21b**
Avon Products **6d**
Avondale Industries **23c**
Aztar **14c**

B

Baker Hughes **11c**
Ball **7a**
Bally Mfg. **14d**
Baltimore G&E **24a**
Banc One **3b**
Bandag **2c**
Bank of Boston **3a**
Bank of New England **3a**
Bank of New York **3a**

BankAmerica **3d**
Bankers Trust New York **3a**
Banta **21d**
Bard (C. R.) **12d**
Barnes Group **13a**
Barnett Banks **3c**
Baroid **11c**
Bassett Furniture **6b**
Bausch & Lomb **12d**
Baxter International **12d**
Bear Stearns **17a**
Beckman Instruments **9c**
Becton, Dickinson **12d**
Bell Atlantic **22b**
BellSouth **22b**
Bemis **7b**
Beneficial **17a**
Bergen Brunswig **12a**
Berkshire Hathaway **17a**
Best Buy **6b**
Bethlehem Steel **16b**
Betz Laboratories **4**
Beverly Enterprises **12c**
Bindley Western **12a**
Black & Decker **15b**
Block (H&R) **17a**
BMA **17b**
Boatmen's Bancshares **3b**
Bob Evans Farms **14a**
Boeing **1**

Boise Cascade **19a**
Borden **10b**
Boston Edison **24a**
Bowater **19b**
Briggs & Stratton **15c**
Bristol-Myers Squibb **12b**
Broad **17a**
Brooklyn Union Gas **24b**
Brown Group **6a**
Brown-Forman **6c**
Browning-Ferris **21c**
Bruno's **10c**
Brunswick **14d**
Burlington Coat Factory **8**
Burlington Northern **23b**
Burlington Resources **11b**
Businessland **18a**
Butler Mfg. **21a**

C

C&S/Sovran **3c**
Cabot **4**
Caesars World **14c**
CalFed **17c**
CalMat **13a**
Campbell Soup **10b**
Capital Cities/ABC **20a**
Capital Holding **17b**
Cardinal Distribution **12a**
Carlisle **2c**
Carnival Cruise Lines **14d**

Carolina Freight **23d**
Carolina Power **24a**
Carpenter Tech. **16b**
Carter Hawley Hale **8**
Carter-Wallace **12b**
Casey's General **10c**
Castle & Cooke **10b**
Castle (A. M.) **21b**
Caterpillar **15c**
CBI Industries **11c**
CBS **20a**
CDI **21e**
Centel **22b**
Centerior Energy **24a**
Centex **13b**
Central & South West **24a**
Champion Intl. **19b**
Charming Shoppes **8**
Chase Manhattan **3a**
Chemed **6d**
Chemical Banking **3a**
Chemical Waste **21c**
Chesapeake **19b**
Chevron **11b**
Chiquita Brands **10b**
Chrysler **2a**
Chubb **17b**
Cigna **17b**
Cincinnati Bell **22b**
Cincinnati G&E **24a**

Cincinnati Milacron **15b**
Circuit City Stores **6b**
Circus Circus **14c**
Citadel Holding **17c**
Citicorp **3a**
Clark Equipment **15b**
Clorox **6d**
CMS Energy **24a**
CNA Financial **17b**
Coast Savings **17c**
Coastal **11b**
Coca-Cola **6c**
Coca-Cola Enterprises **6c**
Colgate-Palmolive **6d**
Collins Foods **14a**
Columbia Gas **24b**
Comcast **20a**
Comdisco **18c**
Comerica **3b**
Commerce Clearing **20b**
Commercial Metals **16b**
Commodore Intl. **18b**
Commonwealth Ed **24a**
Compaq Computer **18b**
Computer Associates **18c**
Computer Sciences **18c**
ConAgra **10b**
Conner Peripherals **18b**
Conseco **17b**
Consolidated Edison **24a**
Cons. Freightways **23d**

Cons. Natural Gas **24b**
Consolidated Papers **19b**
Consolidated Rail **23b**
Consolidated Stores **8**
Constar International **7a**
Contel **22b**
Continental Airlines **23a**
Continental Bank **3b**
Continental Corp. **17b**
Control Data **18b**
Cooper Industries **9a**
Cooper Tire & Rubber **2c**
Coors (Adolph) **6c**
CoreStates Financial **3a**
Corning **15a**
Costco Wholesale **8**
CPC International **10b**
Crane **15a**
Cray Research **18b**
Crestar Financial **3c**
Cross & Trecker **15b**
Crown Central **11b**
Crown Cork & Seal **7a**
CRSS **21a**
Crystal Brands **6a**
CSX **23b**
Cummins Engine **2b**
Curtice-Burns Foods **10b**
Cyprus Minerals **16c**

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ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

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D

Dana **2b**
Danaher **15b**
Data General **18b**
Dayton Hudson **8**
Dean Foods **10b**
Deere **15c**
Delta Air Lines **23a**
Delta Woodside **15d**
Deluxe **18a**
Detroit Edison **24a**
Dexter **4**
Diamond Shamrock **11b**
Dibrell Brothers **6e**
Diebold **18a**
Digital Equipment **18b**
Dillard **8**
Dime Savings Bank **17c**
Disney (Walt) **14b**
Diversified Energies **24b**
Dixie Yarns **15d**
Dollar General **8**
Dominion Resources **24a**
Donnelley (R R) **21d**
Dover **15c**
Dow Chemical **4**
Dow Jones **20b**
Downey Savings **17c**
Dresser Industries **11c**
Drug Emporium **12a**
Du Pont **4**
Duke Power **24a**
Dun & Bradstreet **20b**
Durr-Fillauer Medical **12a**

E

E Systems **9b**
Eagle Food Centers **10c**
Eagle-Picher Industries **2b**
Eastern Enterprises **24b**
Eastman Kodak **14d**
Eaton **2b**
Echlin **2b**
Ecolab **6d**
Edison Brothers **8**
Edwards (A G) **17a**
EG&G **21a**
Egghead **18a**
Electronic Data **18c**
Emerson Electric **9a**
Emerson Radio **6b**
Engelhard **4**
Enron **24b**
Enserch **24b**
Entergy **24a**
Equifax **17a**
Equitable of Iowa **8**
Ethyl **4**
Exxon **11b**

F

Family Dollar Stores **8**
Fay's **12a**
Federal Express **23c**
Federal Home Loan **17a**
Federal Natl Mtg **17a**
Federal Paper Board **7b**
Federal-Mogul **2b**
Ferro **4**
FHP International **12c**
Fieldcrest Cannon **15d**
Figgie International **5**
Finevest Foods **10a**
Fingerhut **8**
First American Fin **17a**
First Bank System **3b**
First Brands **15a**
First Capital **17b**
First Chicago **3b**
First City Bancorp **3d**
First Fidelity **3a**
First Fin'l Mgmt **17a**
First Interstate Bancorp **3d**
First Mississippi **4**
First of America Bank **3b**
First Union **3c**
Fleet/Norstar **3a**
Fleetwood Ents **14d**
Fleming **10a**
Florida Progress **24a**
Flowers Industries **10b**
Fluor **21a**
FMC **15c**
Food Lion **10c**
Ford Motor **2a**
Foster Wheeler **21a**
FPL Group **24a**
Freeport-McMoRan **4**
Fruit of the Loom **6a**
Fuller (H B) **4**
Fund American **17b**
Fuqua Industries **5**

G

Gannett **20b**
Gap **8**
Gatx **23c**
Gaylord Container **7b**
Geico **17b**
GenCorp **1**
General Cinema **5**
General Dynamics **1**
General Electric **5**
General Host **5**
General Mills **10b**
General Motors **2a**
General Public Uts **24a**
General Re **17b**
General Signal **9c**
Genesco **8**
Genlyte Group **9a**
Genuine Parts **21b**
Georgia Gulf **4**
Georgia Pacific **19a**
Gerber Products **10b**
Giant Food **10c**
Gibson Greetings **14d**
Gillette **6d**
Gitano Group **6a**
Glatfelter (P H) **19b**
Glenfed **17c**
GM Hughes **9b**
Golden West **17c**
Goodrich (B F) **4**
Goodyear Tire & Rubber **2c**
Goulds Pumps **15c**
Grace (W R) **4**
Grainger (W W) **21b**
Granite Construction **21a**
Great American Bank **17c**
Great A&P **10c**
Great Lakes Chemical **4**
Great Western **17c**
Greyhound Dial **5**
Grumman **1**
GTE **22b**
Guilford Mills **15d**
Gulf States Utilities **24a**

H

Halliburton **11c**
Handleman **21e**
Handy & Harman **16c**
Hanna (M A) **4**
Hannaford Brothers **10c**
Harcourt Brace **20b**
Harley-Davidson **14d**
Harman International **14d**
Harnischfeger **15c**
Harris **9b**
Harsco **15a**
Hartford Steam **17b**
Hartmarx **6a**
Hasbro **14d**
Hechinger **8**
Heinz (H. J.) **10b**
Helene Curtis Industries **6d**
Henley Group **9c**
Hercules **4**
Hershey Foods **10b**
Hewlett-Packard **18b**
Hillenbrand **15a**
Hillhaven **12c**
Hills Department Stores **8**
Hilton Hotels **14c**
Home Depot **8**
Home Shopping **8**
HomeFed **17c**
HON Industries **18a**
Honeywell **9c**
Hormel (Geo. A.) **10b**
Household International **5**
Houston Industries **24a**
Hubbell **9a**
Hudson Foods **10b**
Huffy **14d**
Hughes Supply **13a**
Humana **12c**
Hunt (J. B.) **23d**
Huntington Bancshares **3b**

I

IBM **18b**
IBP **10b**
ICH **17b**
Illinois Power **24a**
Illinois Tool Works **15a**
IMC Fertilizer **4**
Imecera Group **12d**
Imo Industries **9c**
Inacomp Computer **18a**
Independent Ins **17b**
Ingersoll-Rand **15c**
Ingles Markets **10c**
Inland Steel **16b**
Inspiration Resources **16c**
Intel **9d**
Intelligent Electronics **18a**
Interface **15d**
Intergraph **18c**
Interlake **15c**
International Flavors **6d**
Intl Multifoods **10b**
International Paper **19b**
Interpublic Group **21d**
Iowa **5**
ITT **5**

J

Jacobs Engineering **21a**
James River **19b**
Jamesway **8**
Jefferson-Pilot **17b**
Johnson & Johnson **12d**
Johnson Controls **9c**
Jostens **15a**
JWP **21e**

K

K mart **8**
Kaman **1**
Kansas City Southern **23b**
Karcher (Carl) **14a**
Kaufman & Broad **13b**
Kellogg **10b**
Kellwood **6a**
Kelly Services **21e**
Kemper **17b**
Kennametal **15b**
Kerr-McGee **11b**
KeyCorp **3a**
Kimball International **6b**
Kimberly-Clark **19b**
Knight-Ridder **20b**
Kroger **10c**

L

L A Gear **6a**
La-Z-Boy Chair **6b**
Ladd Furniture **6b**
Lafarge **13a**
Lancaster Colony **6b**
Lands' End **8**
Leggett & Platt **6b**
Leslie Fay **6a**
Leucadia National **17a**
Lifetime **12c**
Lilly (Eli) **12b**
Limited **8**
LIN Broadcasting **20a**
Lincoln National **17b**
Litton Industries **9b**
Liz Claiborne **6a**
Lockheed **1**
Loctite **4**
Loews **17a**
Lone Star Techs **16b**
Long Island Lighting **24a**
Longs Drug Stores **12a**
Longview Fibre **7b**
Loral **9b**
Lotus Development **18c**
Louisiana Land **11b**
Louisiana Pacific **19a**
Lowe's **8**
LSI Logic **9d**
Lubrizol **4**
Lukens **16b**
Lyondell **4**

M

Magma Copper **16c**
MagneTek **9a**
Manor Care **12c**
Manufacturers Hanover **3a**
Manville **13a**
Maple **11b**
Marion Merrell Dow **12b**
Marriott **14c**
Marsh & McLennan **17a**
Marsh Supermarkets **10c**
Marshall Industries **21b**
Martin Marietta **1**
Masco **6b**
Masco Industries **2b**
Mattel **14d**
Maxim **18b**
Maxus Energy **11b**
Maxxam **16a**
May Department Stores **8**
Maytag **6b**
MCA **14b**
McCaw Cellular **22a**
McCormick **10b**
McDermott Intl **15c**
McDonald's **14a**
McDonnell Douglas **1**
McGraw-Hill **20b**
MCI Communications **22a**
McKesson **12a**
MCN **24b**
Mead **19b**
Medco Containment **12a**
Media General **20b**
Medtronic **12d**
Mellon Bank **3a**
Melville **8**
Mercantile Stores **8**
Merck **12b**
Meredith **20b**
Meridian Bancorp **3a**
Merisel **18a**
Merrill Lynch **17a**
Merry-Go-Round **8**
Meyer (Fred) **8**
Michigan National **3b**
Microsoft **18c**
Midlantic **3a**
Midway Airlines **23a**
Miller (Herman) **18a**
Millipore **9c**
Minnesota Mining **15a**
Mitchell Energy **11b**
MNC Financial **3a**
Mobil **11b**
Molex **9d**
Monarch Capital **17b**
Monsanto **4**
Morgan (J. P.) **3a**
Morgan Stanley **17a**
Morrison **14a**
Morrison Knudsen **21a**
Morton International **4**
Motorola **9b**
Multimedia **20a**
Murphy Oil **11b**

N

Nacco Industries **11a**
Nalco Chemical **4**
Nash Finch **10a**
Nashua **7b**
National City **3b**
Natl. Convenience **10c**
National Fuel Gas **24b**
National Intergroup **5**
National Medical **12c**
National Semicond **9d**
National Service **9a**
Navistar International **2a**
NBD Bancorp **3b**
NCH **6d**
NCNB **3c**
NCR **18b**
Neiman Marcus Group **8**
Nerco **11a**
New England Electric **24a**
New York State E&G **24a**
New York Times **20b**
Newell **15a**
Newmont Gold **16c**
Newmont Mining **16c**
Niagara Mohawk **24a**
Nicor **24b**
Nike **6a**
Nipsco Industries **24a**
NL Industries **4**
Nordstrom **8**
Norfolk Southern **23b**
Northeast Utilities **24a**
Northern States **24a**
Northern Trust **3b**
Northrop **1**
Norwest **3b**
Nucor **16b**
NWNL **17b**
Nynex **22b**

O

Occidental Pet **11b**
Ogden **5**
Ohio Edison **24a**
Olin **4**
Olsten **21e**
Omnicom Group **21d**
Oracle Systems **18c**
Orion Capital **17b**
Orion Pictures **14b**
Oryx Energy **11b**
Outboard Marine **14d**
Owens & Minor **12d**
Owens-Corning **13a**
Oxford Industries **6a**

P

Paccar **2a**
Pacific Enterprises **24b**
Pacific G&E **24a**
Pacific Telecom **22a**
Pacific Telesis Group **22b**
PacifiCare Health **12c**
PacifiCorp **24a**
PaineWebber Group **17a**
Pall **5**
Pan Am **23a**
Panhandle Eastern **24b**
Paramount Comms **14b**
Parker Hannifin **15a**
Penn Central **5**
Penney (J. C.) **8**
Pennsylvania Power **24a**
Pennzoil **11b**
Pentair **15c**
Peoples Energy **24b**
Pep Boys **8**
PepsiCo **6c**
Perini **13b**
Perkin-Elmer **9c**
Perry Drug Stores **12a**
Petrie Stores **8**
Pfizer **12b**
Phelps Dodge **16c**
PHH **23c**
Philadelphia Electric **24a**
Philip Morris **6e**
Phillips Petroleum **11b**
Philips-Van Heusen **6a**
PHM **13b**
Pic 'N' Save **8**
Pier 1 Imports **6b**
Pilgrim's Pride **10b**
Pinnacle West **24a**
Pioneer Hi-Bred **10b**
Pitney Bowes **18a**
Pittston **11a**
Ply Gem Industries **13a**
PNC Financial **3a**
Polaroid **14d**
Pope & Talbot **19a**
Potlatch **19b**
Potomac Electric **24a**
PPG Industries **13a**
Precision Castparts **16c**
Premark International **5**
Premier Industrial **21b**
Preston **23d**
Price **8**
Primerica **17a**
Procter & Gamble **6d**
Progressive **17b**
Promus **14c**
Provident Life **17b**
PS Co. of Colorado **24a**
Public Service Ent **24a**

Q

Quaker Oats **10b**
Quaker State **11b**
Quanex **16b**
Quantum **18b**
Quantum Chemical **4**
QVC Network **8**

R

Ralston Purina **10b**
Raychem **9a**
Raytheon **9b**
Readers Digest **20b**
Reebok International **6a**
Reliance Group **17b**
Republic New York **3a**
Reynolds & Reynolds **18a**
Reynolds Metals **16a**
Rhone-Poulenc Rorer **12b**
Richfood Holdings **10a**
Riser Foods **10c**
Rite Aid **12a**
Roadway Services **23d**
Rochester Telephone **22b**
Rockwell International **5**
Rohm & Haas **4**
Rohr Industries **1**
Rose's Stores **8**
Ross Stores **8**
Rubbermaid **15a**
Ruddick **10c**
Russell **6a**
Ryder System **23c**
Rykoff-Sexton **10a**
Ryland Group **13b**

S

Safeco **17b**
Safety Kleen **21e**
Safeway **10c**
Salomon **17a**
San Diego G&E **24a**
Santa Fe Pacific **23b**
Sara Lee **10b**
Savannah Foods **10b**
SCEcorp **24a**
Schering-Plough **12b**
Schlumberger **11c**
Schulman (A.) **4**
Schultz Sav 'O Stores **10c**
Schwab (Charles) **17a**
SCI Systems **9b**
Scientific-Atlanta **22a**
Scott Paper **19b**
Scripps (E. W.) **20b**
Seagate Technology **18b**
Sears, Roebuck **8**
Security Pacific **3d**
Service Corp. Intl **21e**
Service Merchandise **8**
Shaw Industries **15d**
Shawmut National **3a**
Sherwin-Williams **13a**
Shoney's **14a**
Signet Banking **3c**
Smith (A. O.) **2b**
Smith Corona **18a**
Smith's Food & Drug **10c**
Snap-on Tools **15b**
Society **3b**
Sonat **24b**
Sonoco Products **7b**
Southdown **13a**
Southeast Banking **3c**
Southern **24a**
So. New Eng. Tel **22b**
Southwest Airlines **23a**
Southwest Gas **24b**
Southwestern Bell **22b**
Spiegel **8**
Springs Industries **15d**
SPX **15b**
Square D **9a**
St. Paul **17b**
Standard Commercial **6e**
Standard Federal **17c**
Standard Products **2b**
Standard Register **18a**
Stanhome **6d**
Stanley Works **15b**
Sterling Chemicals **4**
Stewart & Stevenson **15c**
Stone Container **7b**
Storage Technology **18b**
Strawbridge & Clothier **8**
Stride Rite **6a**
Student Loan Mktg **17a**
Sun **11b**
Sun Microsystems **18b**
Sundstrand **1**
SunTrust Banks **3c**
Super Food Services **10a**
Super Valu Stores **10a**
Syntex **12b**
Sysco **10a**

T

Tambrands **6d**
Tandem Computers **18b**
Tandy **18b**
TBC **21b**
TCF Financial **17c**
Tektronix **9c**
Tele-Communications **20a**
Teledyne **5**
Temple-Inland **7b**
Tenneco **5**
Teradyne **9c**
Terex **15c**
Texaco **11b**
Texas Instruments **9d**
Texas Utilities **24a**
Textron **5**
Thermo Electron **21a**
Thiokol **1**
Thomas & Betts **9a**
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Universal Health **12c**
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UST **6e**
USX **5**

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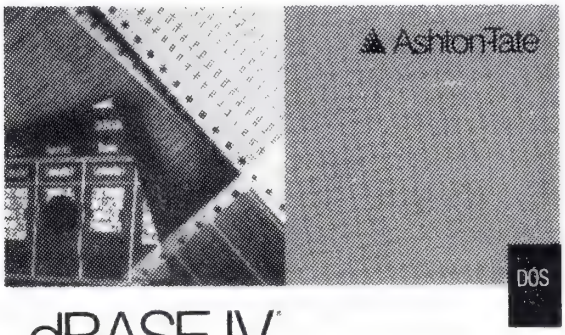
dBest Yet.



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From quality products for today to research for tomorrow, Uniden is helping people communicate in every way imaginable.

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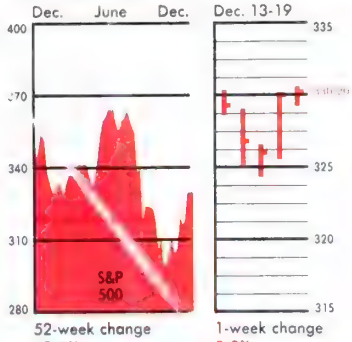
A Clear Signal Of What's Ahead.

Investment Figures of the Week

COMMENTARY

Christmas arrived early on W Street. On Dec. 18, the Fede Reserve sliced the discount ra half a percentage point, to 6½. That's recognition from the m- tary authorities that the weak U. S. economy needs a boost.e move bolstered the stock mar. which had been sliding back down from the Dow 2600 ma The Japanese stock market's yr- end rally continued, with the N- kei index adding an additiona 1900 points, or 7.8% atop la week's 8.1% gain.

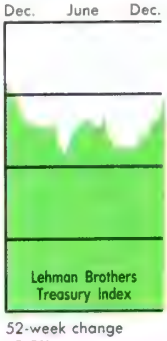
STOCKS



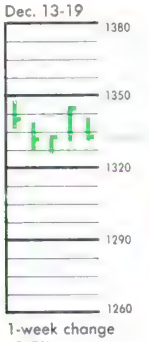
52-week change **–3.7%**

1-week change **0.0%**

BONDS

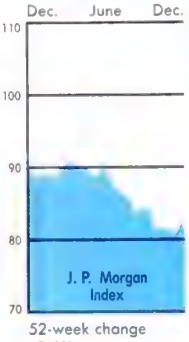


52-week change **–3.3%**

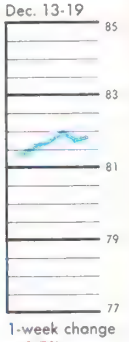


1-week change **–1.2%**

THE DOLLAR



52-week change **–8.6%**



1-week change **0.7%**

MARKET ANALYSIS

U. S. STOCKS	Latest	% change Week	% change 52-week
DOW JONES INDUSTRIALS	2626.7	0.2	–2.3
BIG COMPANIES (Russell 100(	171.2	0.1	–4.6
SMALL COMPANIES (Russell 2(0)	130.6	0.0	–19.9
ALL COMPANIES (Russell 300(	180.7	0.1	–5.5

FOREIGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
LONDON (FINANCIAL TIMES 10	2178.7	0.6	–7.7
TOKYO (NIKKEI INDEX)	25,876.8	7.8	–32.8
TORONTO (TSE COMPOSITE)	3253.7	0.0	–17.0

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	6.8%	7.1%	7.9%
30-YEAR TREASURY BOND YIELD	8.2%	8.1%	7.9%
S&P 500 DIVIDEND YIELD	3.6%	3.6%	3.2%
S&P 500 PRICE/EARNINGS RATIO	15.1	15.1	14.6

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	327.7	328.9	Positive
Stocks above 26-week moving average	30.8%	29.4%	Neutral
Speculative sentiment: Put/call ratio	0.46	0.45	Positive
Insider sentiment: Vickers sell/buy ratio	0.40	0.38	Positive

INDUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

FOUR-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
HOMEBUILDING	25.4	–14.9	KAUFMAN & BROAD HOME	32.7	–31.8	9⅛
HOTELS AND MOTELS	21.8	–62.1	PROMUS	30.1	–43.0	16¾
GAMING	17.7	–16.9	CAESARS WORLD	22.3	–42.4	17⅛
PERSONAL LOANS	16.2	–27.2	HOUSEHOLD INTERNATIONAL	28.2	–37.3	31¼
PAPER CONTAINERS	15.4	–16.9	TEMPLE-INLAND	15.6	4.4	32½

FOUR-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
REAL ESTATE INVESTMENT TRUST	–18.2	–46.0	FIRST UNION REAL ESTATE	–38.4	–58.5	7⅝
AUTOMOBILES	–6.5	–28.2	GENERAL MOTORS	–9.4	–17.4	35⅛
DOMESTIC OIL	–4.3	–8.5	ORYX ENERGY	–14.6	–20.2	36½
COAL	–4.2	–12.1	EASTERN ENTERPRISES	–7.5	–20.8	26¼
NATURAL GAS DISTRIBUTION	–4.0	–15.4	PANHANDLE EASTERN	–16.7	–64.9	10⅝

MUTUAL FUNDS

MORNINGSTAR INC

LEADERS

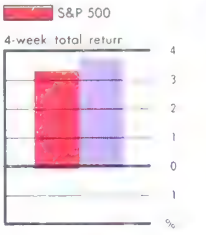
Four-week total return	%
FINANCIAL STRATEGIC HEALTH SCIENCES	13.3
API GROWTH	12.9
MFS LIFETIME EMERGING GROWTH	11.8

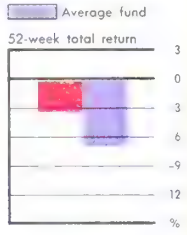
52-week total return	%
FIDELITY SELECT BIOTECHNOLOGY	41.2
FIDELITY SELECT HEALTH CARE	25.5
FINANCIAL STRATEGIC HEALTH SCIENCES	24.2

LAGGARDS

Four-week total return	%
STRATEGIC INVESTMENTS	–7.6
FINANCIAL STRATEGIC ENERGY	–7.5
STRATEGIC SILVER	–7.4

52-week total return	%
STRATEGIC INVESTMENTS	–50.9
STRATEGIC SILVER	–49.5
SHERMAN DEAN	–45.1





RELATIVE PORTFOLIOS

DATA RESOURCES INC.

ar amounts
esent the present
e of $10,000
sted one year
in each portfolio

entages indicate
day total returns

Money market fund
$10,679
–0.14%

Treasury bonds
$10,474
–0.69%

U. S. stocks
$9,797
+1.11%

Gold
$9,144
+0.73%

Foreign stocks
$8,608
–0.79%

ta on this page are as of market close Wednesday, Dec. 19, 1990, unless otherwise indicated. y groups include S&P 500 companies only; performance and share prices are as of market close Dec. 18. Mutual fund returns are as of Dec. 14 Relative portfolios are valued as of Dec. 18. A more detailed explanation of this page is available on request.

PRUDENCE AND PATIENCE —TILL THE 1991 RECOVERY

Don't kid yourself, investing during a recession is no lay-up. In between great opportunities yawn black holes, so investors must be extra cautious. Some categories of investment, such as commercial real estate, could take years to improve. And many financial institutions are likely to fail before that industry regains its health.

Investors will also need patience. The days of quick bucks and easy profits are past. A longer-term perspective is needed (page 71). There are already signs that individual investors are adopting this view. Despite a severe drop in the stock market, mutual-fund sales remained strong through 1990, and redemptions did not increase significantly.

Economists tell us that recessions are inevitable if we are to purge the excesses of boom years and restore balance to the system. If, as a result of the current downturn, investors forgo the quest for instant gratification in favor of long-term gains, then both the economy and the markets will be better off for it.

The best time to invest is often when things look bleakest. History books are full of stories of those who scored when everyone else was too scared to try or unaware that opportunities even existed. A few contrarian souls did well by venturing into New York real estate in 1975, government bonds in 1981, and stocks in 1982—all times when the crowd wouldn't be caught dead with such holdings.

Then, too, U. S. financial markets aren't the only possibility for investors: Today, the scope of potential investments circles the globe. Not all of the world's major economies are going through a recession right now, but just about all of the bourses have been suffering through bear markets over the past year.

The markets may be discounting the worst of the recession. The average U. S. downturn lasts 11 months, and the current one is already as much as four months old. Our economists' survey projects that the impact will be moderately severe. We could have a economic recovery as soon as the second half of 1991, and since the stock market usually recovers about six months ahead of the economy, there could be better times on Wall Street in the first half.

LIMIT CAMPAIGN FUNDS, NOT TERMS IN CONGRESS

Opinion polls show a huge majority of the public favors limiting the terms of elected officials. Now, President Bush has thrown his weight behind a constitutional amendment to limit terms.

Some of the arguments against limiting the service of members of the House and Senate are specious. It's true that arbitrary restrictions would cost the nation the services of experienced and effective members. But for every Solon booted, Congress would be rid of two hacks. High turnover among members might lead to a Congress run by its staff, but the Keating Five probe has shown the extent to which the staff already runs Capitol Hill.

The decisive argument against term limitation, whether for Congress or for the Presidency, that it is profoundly antidemocratic. It denies citizens the fundamental right to vote for whomever they please and denies candidates the right to run for public office simply because of prior service.

Nevertheless, the pols are right to be scared. If Congress wants to derail the term-limitation locomotive, it must overhaul campaign-finance laws to give voters a real choice. Members have to be prevented from carrying nest eggs from one campaign to the next. Far too many incumbents are able to discourage serious opposition simply because, on the day after the election, they've already amassed a big war chest for the next campaign. And Congress should find ways, consistent with constitutional guarantees of free speech, to limit total campaign spending and reduce the role of political action committees.

Crusaders for term limitation have a point when they say that the fund-raising ability of incumbents is subverting democracy. Unfortunately, the proposed cure is as bad as the disease. Let's forget about term limits and give real campaign-finance reform a try.

A FLIGHT PLAN TO BRING NASA DOWN TO EARTH

It's no secret that America's space program is in trouble. The first sign was the disastrous Challenger accident in 1986. Since then, mechanical glitches have forced repeated delays in shuttle launches. And quality-control lapses have produced expensive snafus such as the nearsighted Hubble telescope.

But the National Aeronautics & Space Administration's woes go far beyond these visible failures. Fundamental changes in the way the agency operates and in its programs are required. Now, we have a no-nonsense blueprint for reform, thanks to a sweeping plan to overhaul the space program—one that could finally send it on a more realistic and productive path. The recommendations, issued by a blue-ribbon 12-member panel headed by Martin Marietta Corp. Chairman Norman R. Augustine, cut to the heart of the space program's problems.

Arguing that NASA is trying to do too much with too few resources, the group urges setting aside dreams of colonizing the moon and exploring Mars. Instead, the space effort's emphasis should be shifted to programs that can help solve such earthly problems as global warming. Other recommendations: Redesign the costly and ill-conceived space station to enable the agency to focus more on research; reduce reliance on the space shuttle in favor of a new, unmanned launch vehicle; and revamp the space agency's management structure to ensure accountability.

What the panel envisions is a wrenching change for NASA. But that is exactly what is needed if the U. S. is to reap the benefit of the billions of dollars spent so far.